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ABSTRACT

This second part of the congressional hearings held in Washington, D.C., in February and March 1981, to reauthorize the Vocational Education Act of 1963 contains 17 pieces of testimony on the special needs of vocational education in rural and urban areas. Persons giving testimony included representatives of the following institutions: Houston Independent School District; Tri-County Technical College in Pendleton, South Carolina; Center for the Study of Public Policy in Somerville, Massachusetts; Maine State Department of Education; Perry County Board of Education in Marion, Alabama; University of Chicago; City University of New York; and the state of Oklahoma. Reports are appended concerning conditions in rural America affecting vocational education policy, special for-industry state-subsidized job programs, the role of education in industrialization in the rural southeast, a national study of vocational education systems and facilities, why some school districts fail to apply for federal funds, and sex discrimination in job-hiring practices. (Part 1 of the hearings, which contains testimony on vocational education in different institutional settings, is available separately through ERIC--see note.) (MN)

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HEARINGS ON REAUTHORIZATION OF THE VOCATIONAL EDUCATION ACT OF 1963

Part 2: Urban and Rural Vocational Education

HEARINGS
BEFORE THE
SUBCOMMITTEE ON ELEMENTARY, SECONDARY, AND VOCATIONAL EDUCATION
OF THE
COMMITTEE ON EDUCATION AND LABOR
HOUSE OF REPRESENTATIVES
NINETY-SEVENTH CONGRESS
FIRST SESSION
ON
H.R. 66
TO EXTEND THE AUTHORIZATION OF APPROPRIATIONS UNDER THE VOCATIONAL EDUCATIONAL ACT OF 1963

HEARINGS HELD IN WASHINGTON, D.C. ON
FEBRUARY 26 AND MARCH 3, 1981

Printed for the use of the Committee on Education and Labor

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HEARINGS ON REAUTHORIZATION OF THE VOCATIONAL EDUCATION ACT OF 1963

Part 2: Urban and Rural Vocational Education

THURSDAY, FEBRUARY 26, 1981

House of Representatives,
Subcommittee on Elementary, Secondary,
and Vocational Education,
Committee on Education and Labor,
Washington, D.C.

The subcommittee met, pursuant to call, at 9:30 a.m., in room 2175, Rayburn House Office Building, Hon. Carl D. Perkins (chairman of the subcommittee), presiding.

Members present: Representatives Perkins, Kildee, Williams, Hawkins, Biaggi, Goodling, Erdahl, and Petri.

Staff present: John F. Jennings, counsel; Nancy Kober, staff assistant; and Richard DiEugenio, minority legislative associate.

Mr. Biaggi [presiding]. The meeting is called to order. The Subcommittee on Elementary, Secondary, and Vocational Education is continuing hearings today on the reauthorization of the Vocational Education Act. For the next 2 hearing days we will be looking at vocational programs in different geographical locations. This morning we will be examining the special needs for vocational education of urban areas. Then, next Tuesday, the topic of the hearing will be the special needs for vocational education of rural areas.

I feel it is important to focus on urban and rural areas because these regions have special needs and tend to be underrepresented in the distribution of vocational education funds. For example, the "National Study of Vocational Education Systems and Facilities" (see app. I) conducted in 1978 revealed that while central cities have 22.8 percent of the population in the country, they have only 9.3 percent of the vocational facilities. Similarly, our hearings on the Youth Act last year called attention to the plight of unemployed and undereducated youth in our inner cities.

I also want to make clear that although we are focusing on urban and rural areas, we do not intend to overlook the needs of small town or suburban areas. We have already heard from, and will continue to hear from, representatives of these types of localities during the course of our reauthorization hearings.

Let me also mention that Dr. Peterson and Dr. Smith have to leave by 10:30. So, without objection, we will hear from these two witnesses first, have them respond to questions, and then hear from other members of the panel.

So we will hear from Dr. Peterson and Dr. Smith.

STATEMENT OF DR. PAUL E. PETERSON, PROFESSOR, DEPARTMENTS OF POLITICAL SCIENCE AND EDUCATION, AND THE COMMITTEE ON PUBLIC POLICY, UNIVERSITY OF CHICAGO

Dr. **Peterson**. I am Paul Peterson. I am a professor in the Departments of Political Science and Education, and on the Committee of Public Policy at the University of Chicago. I am now a visiting professor at Stanford University.

Mr. **Biaggi**. Excuse me, Dr. Peterson.

Chairman **Perkins** [presiding]. Let me state that we have a budget hearing this morning at this time and I regret I cannot stay, but Mr. Biaggi, who is always a great man and faithful, is here. He, Mr. Hawkins, Mr. Goodling, Mr. Erdahl, and all the others are here this morning and will go a good job. Mr. Ashbrook will be over with me. We are trying to get the budget straightened out. If I can possibly get back in time, I will be with you.

Mr. **Biaggi**. Please come back with enough money, Mr. Chairman.

Chairman **Perkins**. I regret that I must do this. Thank you.

Mr. **Biaggi** [presiding]. Dr. Peterson.

Dr. **Peterson**. Thank you.

Three of my colleagues and I were asked by the National Institute of Education to conduct four separate case studies of the delivery of vocational education services to urban areas. We were asked to examine both the quality of vocational education services being provided in urban areas and the way in which the Vocational Education Act affected local practices. Funds to carry out the research were extremely limited, and each researcher studied the programs in a city with which he was familiar. The four cities examined were Chicago, Atlanta, San Francisco, and Rochester.

My comments today must, therefore, be limited by the small number of vocational programs that we observed. On the other hand the research in each city is based upon direct observation and interviews with many participants in the programs. The judgments presented here have been especially influenced by my own research in Chicago and, in any case, should be taken as the expression of my own views, and not necessarily those of my colleagues or of the National Institute of Education.

I have prepared testimony and I have 50 copies available to the committee and the full testimony I hope can be inserted in the record. I will try to keep my comments brief.

Mr. **Biaggi**. Without objection, so ordered.

Dr. **Peterson**. I have three basic points to make:

One, that vocational education programs have to concentrate on the provision of contacts in the job market for students, as well as providing skills to students.

Two, that we are developing a three-tier system of vocational service delivery in the United States and that may have some deleterious consequences.

Three, that Federal policy under the Vocational Education Amendments Act has had but little effect on local practices in many areas.

The first point has to do with the relationship between the skill training that one gets in vocational education and the marketability of the student. It seems to us that in order for vocational educational programs to manage successfully the transition from school to work, such programs must provide students with two separate, but complimentary attributes—skills and contacts. Until very recently vocational education has focused primarily on the provisions of skills, leaving the development of market contacts either to the discretion or initiative of local administrators or to the individual job hunter who is least equipped to have the contacts necessary for obtaining a job.

We are beginning to see the importance of market contacts in a variety of ways.

First of all, economists are recognizing that when individuals search for jobs and when firms search for employees, both sides are looking for a complex package of characteristics that best suits their interests.

Second, information about the characteristics of the job and the characteristics of the employee is difficult to obtain.

Third, once a job has been accepted and the person hired, disengagement is difficult and costly. As a colleague of mine said the other day:

> Labor markets don't operate like grain markets, where the quality of a commodity is quite easily determined. Instead, labor markets are more like marriage markets, where everything is uncertain and unpredictable.

Now, in that kind of a situation where exchanges are difficult, simplifying devices are needed. Firms need cues that tell them easily and quickly who is likely to be an appropriate employee and the recommendations of friends and people who one trusts can be very important in effecting whether somebody gets a job; just like a young lady is likely to prefer the boy mentioned by a cousin to one offered by a computer dating service; so many first will hire friends and relatives of trusted employees or use other informal contacts when seeking somebody to work for them.

Informal networks through which reliable trusted communication can be passed quickly and easily seems to be one of the most potent job placement mechanisms.

Such contacts are especially needed by young adults who otherwise might be viewed as high risk employees.

For these reasons, successful vocational education programs must provide students with contacts as well as skills. Of course, the two will go together. If a training program acquires a reputation for producing high quality personnel, the graduates of the program will find the school's credentials valuable in the job search. On the other hand, if a program cannot find jobs for its graduates, the program will not be able to attract good students and its teachers will begin to lose enthusiasm for their work.

Now, unfortunately, it seems to us we have developed in the United States programs of vocational education that vary substantially from one another and vary substantially in their prestige in the marketplace. At the top of the system is the service delivery provided through our postsecondary institutions, including the community colleges and the junior colleges; in the middle are the vocational programs in many of our secondary schools, which vary greatly in quality from the prestigious specialized vocational high school to the less well-endowed vocational educational programs provided in our comprehensive or neighborhood high schools. At the bottom one finds the many and varied manpower training programs funded under the Comprehensive Education and Training Act, CETA, which have the least prestige in the marketplace. If the program does not have prestige in the marketplace, no matter how good the training program is, it is difficult for the program to place its graduates in good and secure jobs.

Let me go on to my third point, the impact of Federal policy on secondary vocational programs. In our judgment, the impact of the Vocational Education Act on secondary vocational programs was generally quite marginal. It is always difficult to determine exactly how much Federal policy is having an effect at the local level; but in our research where we looked at what was going on in local schools and specific buildings and places, we found many administrators generally uninformed about the purposes of Federal legislation and unaware of what was necessary to comply with the legislation. We found this with respect to policies on sex stereotyping. Although the Vocational Education Amendments of 1976 place great stress on eliminating sex biases, we found little evidence that this national commitment was inducing major commitments at the local level. We found little effect in the area of evaluation. Although the legislation has extremely specific requirements as to the kind of evaluation that should take place we found that local practice was very general and gave almost complete discretion to local officials over the way in which the data was being collected and the use to which it was being put.

In other areas as well, we found only a minimal policy effect.

Now, let me move quickly to three recommendations that I would like to make to the committee. First, I think that Congress should recognize the limits of its power and work within the parameters. The processes of policy implementation are so complex in the United States that it is very difficult for Congress to achieve specific detailed objectives. Instead of attempting to regulate closely the use of Federal funds, Congress should confine itself to stating broad objectives and arranging in general terms an institutional framework for achieving them. Congress cannot escape its obligations to uphold and enforce fundamental constitutional requirements, but excessively detailed regulations are unlikely to enable the achievement of desired objects. Instead, they are likely to generate high administrative costs and cause local officals to substitute procedural compliance for commitment to policy goals.

Second, even though Federal powers should be used sparingly, Congress should discourage the expansion and perpetuation of hierarchically structured vocational education programs. Indeed, legislation should seek to bridge existing distances. Some existing vocational programs are aimed solely at people from low-income backgrounds and have become stigmatized by the clientele they serve. However high quality these training programs may be, only under unusual circumstances are they able to broker jobs effectively for their students. Their inability to offer employment opportunities at the end of the training program has had a negative effect on teacher and student morale in these programs.

In short, the many manpower programs funded under CETA need to be reexamined to see whether they could best be incorporated into broader vocational education programs serving all segments of the population. Such redirection of funding could revitalize existing institutions, and build upon their relative strengths. This policy change need not, it could, but it need not, divert resources away from low-income groups in the population. Congress can provide loans and subsidies to students from low-income backgrounds, and it can require of institutions receiving vocational education funds that they admit a certain percentage of low income and minority students to their programs; but Congress can leave it to the vocational schools themselves the best way to deploy Federal resources for the benefit of all their students, low income or otherwise.

Finally, it seems to me that Congress should continue, as it has in recent years, to encourage the development of mutually satisfying relationships between vocational programs and the private sector. This should be done not through new regulations and requirements for advisory councils, but by giving vocational education programs additional sources aimed at facilitating an on-the-job training program. Such an effort could be coordinated with existing tax credit programs and in this way Congress could encourage local programs to develop contacts with the private sector in helping firms find people appropriate for employment and assisting people who wish to experience specific job assignments. Just as a period of engagement is thought to be a useful prelude to marriage, so ways of exploring specific job experiences before longer term commitments are made can also be variable. This is a role that I think vocational education needs to take on in the 1980's.

Thank you.

[The prepared testimony of Paul Peterson follows:]

Prepared Testimony of Paul E. Peterson, Professor, Departments of Political Science and Education, and the Committee on Public Policy, University of Chicago

VOCATIONAL EDUCATION AND ASSISTING THE TRANSITION FROM SCHOOL TO WORK

Three of my colleagues at various universities and I were asked by the National Institute of Education to conduct four separate case studies of the delivery of vocational education services to urban areas. We were asked to examine both the quality of vocational education services being provided in urban areas and the way in which the Vocational Education Act affected local practices. Funds to carry our the research were extremely limited, and each researcher studied the programs in a city with which he was familiar. The four cities examined were Chicago, Atlanta, San Francisco and Rochester.

My comments today must, therefore, be limited by the small number of vocational programs observed. On the other hand, the research in each city is based upon direct observation and interviews with many participants in the programs. The judgments presented here have been especially influenced by my own research in Chicago and, in any case, should be taken as the expression of my own views, and not necessarily those of my colleagues or of the National Institute of Education.

PROVISION OF SKILLS AND CONTACTS

In order for vocational education programs to manage successfully the transition from school to work, such programs must provide students with two separate but complementary attributes—skills and contacts. Until very recently, vocational education has focused primarily on the provision of skills, leaving the development of market contacts either to the discretion and initiative of local administrators or to the individual job hunter.

Recent Congressional efforts have begun to address the problem of market contacts, but more needs to be done in this area.

Economists are now beginning to appreciate the great importance of contacts for the workings of the labor market. In the first place, when individuals search for jobs, and when firms search for employees, each is looking for a complex package of characteristics that best suits their interests. On the one side, individuals are concerned not only about salary or wages, but, in addition, distance from home, work environment, hours of work, friendliness of associates, and availability of fringe benefits. On the other side, firms are interested in not only the potential employee's specific job related skills, but also in his or her general abilities, dependability, collegiality, likelihood of remaining in the position, and basic health.

Second, accurate information with respect to all the relevant characteristics of employees, on the one side, and jobs, on the other, is difficult to obtain in advance of employment. The most agreeable person in an interview situation may easily lose his or her temper under tension. Work that seems fascinating from afar may become tedious and boring upon greater familiarity.

Third, once a job has been accepted and a person hired, disengagement is difficult and costly. For the employer union rules and legal requirements may impede discharge. For the employee, the costs of searching for a new position and the danger of developing a reputation for transience and undependability discourage frequent job switching.

In sum, exchange relations are awkward and cumbersome in labor markets. As a colleague of mine observed the other day, labor markets to not operate like grain markets, where the quality of the commodity is quite easily determined. Instead, labor markets are more like marriage markets, where everything is uncertain and unpredictable. Just as prudent people enter the marriage market cautiously and make commitments only after gathering a good deal of information, in the same way firms and potential employees must consider many factors before a "match" can be made.

Where exchanges are difficult, simplifying devices are needed. Firms need cues that tell them easily and quickly who is likely to be an appropriate employee. Education has come to be one such cueing mechanism in the United States. Firms have discovered that those who do well and persevere in their school work will do well on the job. Thus, the length of years a person remains in school is a good predictor of a person's earned income.

Race, sex and age cues also seem to be used by many employers. Social stereotypes have in the past stigmatized racial minorities as lazy, women as flightly, and young adults as undependable. As part of a changing national consciousness, actively encouraged by federal policy, social stereotypes for women and minorities are now beginning to disappear. But as the unemployment rates among young adults continue to climb, they are becoming increasingly victimized in labor markets as potential employers treat their age as a negative cue. This problem is most prominent in urban communities resembling the ones studied, in which unemployment rates exceed the national average, particularly for young adults who are members of minority groups.

Although precise information is missing, another type of cue—the recommendations of friends—also seems to be an important factor affecting job placement. Just as a young lady is likely to prefer the boy mentioned by a cousin to one offered by a computer dating service, so many firms will hire friends and relatives of trusted employees or use other informal contacts when seeking employees. Informal networks through which reliable, trusted communication can be passed quickly and easily seem to be one of the most potent job placement mechanisms. Such "contacts" are especially needed by young adults, who otherwise may be viewed as "high risk" employees.

For these reasons, successful vocational education programs must provide students with contacts as well as skills. Of course, the two will tend to go together. If a training program acquires a reputation for producing high-quality personnel, the graduates of the program will find the school's credentials valuable in the job search. On the other hand, if a program cannot find jobs for its graduates, the program will not be able to attract good students and its teachers will begin to lose enthusiasm for their work. The educational level of the program itself will begin to slip. Skills and contacts are like the proverbial chicken and egg. They go together; which comes first is difficult to ascertain.

THE HIERARCHY OF VOCATIONAL EDUCATION PROGRAMS

Vocational education programs are highly varied in the degree to which they have solved this chicken and egg problem. Some programs are exemplary in quality, enjoy abundant resources, admit a limited number of students from a large number of applicants, receive materials and supplies from the private sector, and enjoy enviable placement records. Less well-endowed programs admit students without other educational options, have limited facilities, maintain routine course offerings, and have few contacts with the private sector.

Variability in program offerings has produced a hierarchical relationship among vocational education programs. Indeed, it may even be suggested that we have in the United States a tripartite system of vocational education with each level serving a distinctive clientele. At the top of the vocational hierarchy are the post-secondary institutions, including the community colleges and the junior colleges; in the middle are the vocational programs in many of our secondary schools; at the bottom one finds the many and varied manpower training programs funded under the Comprehensive Education and Training Act (CETA).

The post-secondary vocational programs have expanded rapidly over the past two decades. These programs are notable for their attractiveness to students, the amplitude of resources available to them, the ease with which they can modify course offerings in response to changing market demands, and the many connections they have established with commerce and industry. They have also circumvented enrollment decline problems which have had an impact in all cities investigated, and produced a dramatic deterioration of all but post-secondary vocational education services in one. Post-secondary programs also appear unrivaled in ability to respond to the joint skill-contact dimensions of the vocational education equation.

Some secondary vocational programs in urban areas approach the high level of capacity and performance that is characteristic of many post-secondary schools. Yet, these secondary level successes are exceptional in several respects. First, they occur in typically specialized vocational high schools that recruit students citywide and develop reputations for excellence in certain vocational areas, whether it be industrial trades or business skills. Second, they are given a degree of autonomy from general secondary school policies, allowing them to recruit staff and build private sector relations not typically found in comprehensive high schools. The private sector, in turn, finds them highly attractive sources of potential labor. Third, many of their students are college-bound. Although they operate as vocational schools, they in fact are not directly responsible for the transition from school to work of many of their students. In fact, they rival college preparatory secondary schools in the same system in their reputation for overall academic excellence.

The less well-endowed vocational schools and the vocational programs in many of the urban neighborhood high schools offer much less substantial programs and have limited contact with the private sector. These, of course, are the dominant type of secondary urban vocational education institutions. Instruction is limited by inadequate facilities and out-dated equipment and supplies. Purchase of new materials is difficult for comprehensive schools, both because of the expense of individual pieces of sophisticated equipment and the dilemma of equitably distributing the sparse new equipment that is available. The prestigious schools, by contrast, secure such equipment and material through private donation. Moreover, administrators of less well-endowed vocational schools have far less staffing flexibility than their more prestigious counterparts.

These institutions are not "dumping grounds" for less able students, but advanced skill training is generally not provided in these schools. Instead, general work-related skills are stressed, and include introduction to the basic language of specific vocational areas and to the expectations that will be made by employers in certain industries. This is supplemented by some project-oriented training with equipment, although much of this instruction is not directly applicable for a student seeking immediate employment upon graduation.

Clerical and general business courses may be somewhat more thorough in their introductory courses, perhaps because of reliance on more static technologies. At least they can provide graduates with typing and machine transcription skills that might qualify them for immediate employment. "The wisest investment we could make, if the money was available, would be to update all our typewriter labs so that they were entirely electric," an administrator explained. This might be followed by acquisition of new equipment for accounting and data processing courses. More sophisticated equipment and programs, by contrast, are reserved as the domain of many post-secondary and more illustrious secondary vocational institutions.

IMPACT OF FEDERAL POLICIES

The impact of the Vocational Education Act on secondary vocational programs was generally quite marginal. It is always difficult to winnow federal impact from the myriad of other influences on schools, to be sure, and perhaps the federal emphasis on eliminating sex, racial and other inequalities has in many indirect ways changed the orientations of teachers and administrators. But the amount of perceived local policy change that can be directly attributed to recent amendments to the Vocational Education Act is extremely limited.

Sex stereotyping.—Changes with respect to sex stereotyping in the vocational curriculum are a case in point. Although the Vocational Education Amendments of

1976 place great stress on eliminating sex biases, we found little evidence that this *national commitment was inducing major modifications in local practice and behavior*. The paucity of local complaints about state and federal interference in this area was one indicator that little new was being asked of local officials. In one city the three vocational high schools which have traditionally serviced women retained predominantly female populations in the fall of 1979. The most prestigious of the predominantly female schools did have 77 male students, about 10 percent of the school's population. However, the other two schools had only three boys between them. One vocational school was all male, and the city's trade school was 93 percent male. Principals attributed the continued sex stereotyping in many of the vocational programs to a number of factors: girls dislike "loud, dirty work"; boys realize that the income in traditionally female occupations is relatively poor; "boys do not have the fine motor skills that girls do"; schools cannot counteract the influence of the home. To remedy this, some principals have chosen women in traditionally non-female trades to serve as speakers for local assemblies, and some schools have other programs that try to make women aware that there are well-paying trades which are seeking women. In one city, VEA funds were earmarked for programs to provide non-traditional career opportunities for women. This kind of affirmative action, however, occurs infrequently. Compliance with federal requirements is largely limited to securing eligibility for all courses to both sexes, though even here we discovered one school whose catalogues continue to list separate course requirements for boys and girls along the traditional sex stereotypic lines.

Evaluation.—The limited effects of federal policy were also evident from the ways in which school systems complied with the evaluation requirements of the legislation. According to VEA legislation, each state must "evaluate the effectiveness of each program within the state being assisted with funds available under this Act." Specifically, the legislation requires that "each state shall evaluate, by using data collected, wherever possible, by statistically valid sampling techniques, each such program within the state which purports to impart entry level job skills according to the extent to which program completers and leavers: 1) find employment in occupations related to their training, and 2) are considered by their employers to be well-trained and prepared for employment."

The demands and sophistication of these legal requirements notwithstanding, evaluation of vocational education programs in urban areas are conducted in accord with traditional approaches and techniques that in the end leave local school officials with almost complete discretion over their own programming. It is true that local schools generally file an accountability report for programs within that school. However, the accountability report usually records the number of students by race, sex, handicap, and whether or not they are disadvantaged. In Illinois, the state has also arranged that a group of evaluators visit each school once every five years to assess the strengths and weaknesses of the school's vocational offerings. However, nothing in the evaluation plan requires that the visitors be given information on student skills. Moreover, information from on-site evaluations is not used to determine whether funding should be continued. Instead local officials are left to determine for themselves whether or not they wish to modify practices in light of reviews by evaluators.

Local officials often attempt to avoid potential frictions with federal administrators by channelling federal funds toward areas less likely to prove controversial. Both post-secondary and secondary vocational institutions in one city consistently invest most of their funds in new equipment. "Equipment money is generally scarce in the district, and it is often needed both for old and new programs," explained one administrator. "Besides, the feds tend to strangle you with all kinds of regulations and we find that allocating the money to equipment is the easiest way to use it. Just the paper work alone in other areas of potential expenditure ties you up in such knots; it seems less worthwhile to attempt to use it in other ways."

Advisory councils.—The 1976 Amendments required that each funding recipient "establish a local advisory council to provide . . . advice on current job needs and on the relevancy of courses being offered. . . ." (90 Stat. 2176). The Amendments called for broad participation in these councils, including members of the general public and experts in specific vocational areas germane to the program.

Like other central points of the legislation, the council requirements have had but little impact at the local level. It is true that advisory councils have long been active in the more prestigious local programs; they play influential roles in curricular advisement and also focus on equipment donations to schools, internships and eventual jobs for students. But such active councils are virtually exclusive to more prestigious institutions that are already well-endowed. Predictably, advisory councils at the least able and equipped schools are largely perfunctory. Parents are sometimes amassed to lobby the school board and central administrators, but little substantive output results. Private sector support is negligible.

Limited impact of federal policy: Some explanations.—The reasons for a limited federal impact on local vocational education policy are multiple. In the first place, federal allocations for vocational education in urban areas are only a small percentage of total state and local expenditures. If federal vocational education policy were significantly affecting local practice, it would have to be the proverbial tail wagging the dog.

The way in which vocational education funds are distributed make such wagging highly unlikely. Under the 1976 Amendments, most funds are distributed among the states according to a pre-established formula that is based largely on the population size of each state in certain age categories. Within states the funds are generally apportioned by a pre-established formula. Pre-established formulas minimize discretion available to state and federal officials and maximize autonomy of local administrators. At both state and federal levels, funds are either allocated according to the formula or withheld subject to local compliance. Without the flexibility to vary resource allocation according to the extent to which local officials are vigorously pursuing national objectives, vigrorous enforcement of national policy objectives becomes more difficult.

Furthermore, vocational education funds are allocated among the states on a matching basis. For every federal dollar spent under the basic grants program, states and localities must allocate a similar amount. While this is designed to insure that local governments are genuinely committed to a federally funded program and reduce the fiscal burdens of the federal government, it also means that federal objectives must roughly coincide with state and local objectives. Where the two conflict, federal objectives cannot be pursued too assiduously without jeopardizing state and local willingness to participate. If policies with respect to evaluation and sex stereotyping in vocational education were too stringent, many localities might prefer to forego federal funds under the Act rather than allocated matching local resources for programs found distasteful. "Most of the aid goes into non-essentials, things we would like to have but could conceivably do without," said one postsecondary administrator. "If federal funds were suddenly withdrawn there would probably be no need for us to remove or severely alter any present programs we consider really important."

The two-step process by which the federal government distributes funds further impedes the effectiveness with which the Department of Education can insure effective implementation of its objectives. Federal funds are distributed among the states. It is the state's responsibility to then allocate the funds among school districts, community colleges, and other institutions of learning. State guidelines are interpretations of federal regulations, and state enforcement depends on the eagerness of state officials to pursue national policy objectives. In practice, state officials seem to identify more with the interests and concerns of local school officials than with national policy objectives.

To speak of the processes of policy implementation as two-step is, of course, itself a gross oversimplification of the process that actually occurs. Slippage in national policy objectives occurs not only as the state reformulates national concerns, but at various local steps as well. By focusing much of our research attention on vocational education at the school-building level, we were able to identify perceptions and activities at the very level where services were being delivered. For federal policy to affect activities at this level, they have to be transmitted from Washington to the state capitol, from there to the school system's department of vocational education, from the vocation assistant superintendent to many other administrators, and finally, to principals and teachers in individual schools. The slippage in this process was substantial. Shared perceptions were rare among various levels of the so-called chain of command. At the school level there was scarcely any awareness of a Vocational Education Act at all. Many school-building personnel were simply unaware of the federal presence in vocational education. Federal impact on local vocational programs, in turn, remains largely insubstantial.

COMPREHENSIVE EMPLOYMENT AND TRAINING ACT

The Comprehensive Employment and Training Act (CETA) is one area where federal impact is clear and unmistakable. In this case federal support is essential for the continuation of many manpower training programs and federal guidelines clearly affect program activities. However, the consquences of federal influence are mixed and perhaps even counterproductive.

Over the past two decades Congress has funded a wide range of manpower training programs, most of which have now been more or less consolidated within CETA. Although these programs offer vocational instruction, they are administered separately from the Department of Education and state departments of education, and, in urban areas, separately from local school boards. Congress has mandated coordination between CETA and federally-supported vocational education programs, but the relations between the two entities have been either minimal or hostile.

In one of the cities studied, for example, most lower-ranking vocational school officials knew little and cared less about CETA programs. Many contended that the law does not allow them to inform any enrolled student about the availability of the CETA training programs, regardless of potential applicability of training. They generally complained about the quality of any CETA workers assigned to work in the public schools—unless the school administrator was able to select one of his or her own students for a CETA-paid position. They regarded CETA dollars as wasted money, paying exorbitant funds for programs that included stipends to trainees. We found no school-building-level administrators who showed any awareness of vocational programs being provided by CETA outside the public schools. For the Brahmins in the school system, CETA programs seemed simply "untouchable." Given these attitudes toward CETA, it has been difficult to translate formal cooperation into substantive programs. School administrators, of course, are not the sole sources of intransigence. CETA administrators were equally uncharitable with regard to the public schools. They claimed that they were educating those that the schools had "failed."

CETA programs themselves vary considerably in quality, and there are no doubt some programs in nearly every city that are of exceptional value. Yet, CETA training programs labor under an especially severe constraint: they are officially designated as a service-delivery system specifically reserved for the low-income population. As such, CETA forms the bottom tier of the tripartite system of vocational education that our country has developed.

CETA commitment to serve those that other programs have "failed" is certainly laudable. Nonetheless, CETA programs illustrate the kind of training that emerges when institutions concentrate their services on that segment of the population where unemployment is the greatest. This includes difficulty in establishing working relationships with other, more solidly established government agencies. The number of student contact hours for teachers is high, teacher salaries are relatively low, relationships with industry are difficult to sustain, and successful placement of graduates in stable positions of employment is difficult.

CETA programs have had as much—and possibly more—difficulty in establishing sound relationships with private business firms as have the less prestigious vocational programs in the public schools. Many firms seem to doubt that.

CETA trainees have learned the requisite work skills, and, as a result, most CETA on-the-job training placements have been within the public sector. Congress recently has tried to rectify this arrangement by creating private industrial councils and by giving tax credits to firms who hire individuals enrolled in CETA or comparable training programs. Several CETA administrators were encouraged by this development; "Private institutions," one said, "simply don't want to mess with the government; they say that once you let them in you never get them out, and they're right. They don't want paperwork, and they don't want government inspectors snooping around their shop floor. But they will respond when an incentive is offered, and I think this might work very effectively. It means that businesses can save some bucks and our people can do more than move leaves around for a few months." Although the observation was expressed in optimistic terms, it pointed to difficulties with CETA programs at present. Although businesses and industries will embrace prestigious vocational education programs, they tend to shun less-established programs serving a low-income clientele. Tax incentives may change the pattern, but this still remains in the hopeful stage.

CONCLUSIONS AND RECOMMENDATIONS

On the basis of the research in these four urban areas, I offer three general recommendations in conclusion.

First, Congress should recognize the limits of its power and work within those parameters. The processes of policy implementation are so complex that it is very difficult for Congress to achieve specific, detailed objectives. Instead of attempting to regulate closely the use of federal funds, Congress should confine itself to stating broad objectives and arranging in general terms an institutional framework for achieving them. Congress cannot escape its obligations to uphold and enforce fundamental Constitutional requirements, but excessively detailed regulations are unlikely to enable achievement of desired objectives. Instead, they are likely to generate high administrative costs and cause local officials to substitute procedural compliance for commitment to policy goals.

Second, even though federal powers should be used sparingly, Congress should discourage the expansion and perpetuation of hierarchically structured vocational education programs. Indeed, legislation should seek to bridge existing distances. Some existing vocational programs are aimed solely at people from low-income backgrounds, and have become stigmatized by the clientele they serve. However high-quality these training programs may be, only under unusual circumstances are they able to "broker" jobs effectively for their students. Their inability to offer employment opportunities at the end of the training program, moreover, has a negative effect on teacher and student morale.

In short, the many manpower training programs funded under CETA need to be re-examined to see whether they could best be incorporated into broader vocational education programs serving all segments of the population. Such redirection of funding could revitalize existing institutions, and build upon their relative strengths. This policy change need not divert resources away from low-income groups in the population. Congress can provide loans and subsidies to students from low-income backgrounds, and it can require of institutions receiving its funds that they admit a certain percentage of low-income and minority students. But Congress can leave it to the vocational schools themselves the best way to deploy federal resources for the benefit of all their students, low income or otherwise.

Third, Congress should continue to encourage the development of mutually satisfying relationships between vocational programs and the private sector. Regulations requiring advisory councils or guidelines insisting on evaluations by representatives from the private sector are likely to be ineffectual. But Congress could redirect additional resources aimed at facilitating on-the-job training programs, perhaps administered by existing secondary or post-secondary vocational institutions. Such an effort could be coordinated with existing tax credit programs to encourage training and placement. In this way Congress could encourage local programs to develop contracts with the private sector, help firms find persons appropriate for employment, and assist individuals who wish to experience specific job assignments. Just as a period of engagement is thought to be a useful prelude to marriage, so ways of exploring specific job experiences before longer term commitments are made are needed. Here the role of vocational education can be especially valuable.

Mr. Biaggi. Mr. Smith.

STATEMENT OF JOSHUA L. SMITH, PRESIDENT, BOROUGH OF MANHATTAN COMMUNITY COLLEGE, CITY UNIVERSITY OF NEW YORK

Dr. Smith. Thank you, Mr. Chairman. I am Joshua Smith, president of the Borough of Manhattan Community College of the City University of New York.

I am also chairman of the Commission on Governmental Relations of the American Association of Community and Junior Colleges.

You have my prepared statement in front of you. You also have some supporting documents that describe Manhattan Community College. They are there and my remarks are intended to illustrate what is going on in community colleges generally.

I would like to make the remarks brief and enter the full testimony into the record.

Mr. Biaggi. Without objection, so ordered.

Dr. Smith. I would also like to say to you that what I would say about the Borough of Manhattan Community College really reflects what is going on in urban community colleges around the United States.

Our institution is presently located in the heart of Manhattan in the neighborhood of Broadway and 50th Street and we enroll approximately 9,000 students. I think it is important for you to know what the students are like. In the jargon of our profession, we would call them nontraditional students. Nontraditional means that two-thirds, or 6,000, of our 9,000 students are female. It means that 90 percent of our students, even if they do possess the high school diploma or the G.E.D.'s, do lack some of the fundamental skills they require in reading, writing, computation and so on, skills that are necessary for college level work.

It means that their average age is 26, not 18. It means that by all legitimate criteria, more than 90 percent are eligible for some form of financial aid from city, State, and Federal sources.

It means that 50 percent of our students are married. It means that 44 percent have one or more children. In other words, the non-traditional student is really the traditional student for us. I have to say also that over 70 percent of them are enrolled in career programs, even on a full time or part time basis.

We are successful with them and if I look at last year's graduating class of 751 students, 500 of them successfully completed a career or vocational program of study, that is 67 percent. Two-thirds were female. We know that at least 78 percent of them are working either full or part time and the average salary is $13,860.

It is important for you to know that these students come to us, more than 55 percent of them come to us with average family incomes of less than $5,000. Fifty-one percent of the students are black. Twenty-seven percent of the students are Hispanic. Three percent are Asian and the rest are other; so by any standard I think that we are working where the action needs to be and where the jobs need to be created.

We have done a number of creative things with vocational education funds. I do not want to give you all of the examples, but one of them my colleague here has been talking about; namely, making contacts. We have found through the use of vocational education funds that we have been able to establish and to develop a career data bank that is computerized and contains information for more than 50,000 individual business firms in the city of New York.

We also have information in that data bank which can be retrieved instantaneously on 150,000 smaller firms.

There is a change taking place in the economy of the city of New York. You know that it suffered greatly from the economic problems that this country has had over the last several years from several recessions. Our economy is changing in New York from that of a manufacturing one to that of service and technology. An example of that, an example of the demand that is taking place for training in this area is exemplified by the fact that during this past registration period which took place at the end of January, we have had to turn away hundreds of students who have wanted to enroll in courses in data processing, courses in accounting, courses in business management and courses in respiratory therapy, simply because we did not have the ability to generate the additional resources needed for faculty or for classroom facilities.

Our college operates now between the hours of 8 a.m. and 10 p.m. In the area of data processing, we have had to keep our computer lab open through those hours, extend the hours through Saturday morning and now open additional sections on Saturday afternoon. If we had the financial capability to do it I am certain that we could run that particular facility for 24 hours a day.

In another area, the area of word processing, we have, working in collaboration with people in the industry, decided to establish a very small program in the use of word processing technology. We thought we would do it for housewives who would be returning to the job market and secretaries seeking upgrading. Our experience has been phenomenal. We announced the opening of 30 places for students and we have had to turn away 600. We have a very long, long waiting list of people who wish to get the kind of training that could be possible only through vocational education funds.

Finally, I would like to say something to you about our medical programs. Again, we have used vocational education funds and they have had a profound impact. Specifically, with this assistance, we have established two technical laboratories in the allied health sciences, one in respiratory therapy and one in medical records technology. We are simulating hospital laboratories and requiring all students in these programs to take a comprehensive clinical skill sequence, we were able to prepare our graduates to assume key leadership in service positions in the medical technology field.

I must say to you, and I guess I should boast about it, that all of the graduates are now working in their field of concentration. One is technical director at St. Luke's Hospital Center; another is technical director at Columbia Presbyterian Hospital Center; another is technical director at the Memorial Sloan-Kettering Cancer Center and still another is clinical supervisor of students at Morningside House and yet another is assistant to director of medical records at Bellevue Hospital.

Our students, on the one hand, and the institutions which hire them in responsible positions on the other, attest to the quality of training we are providing in a large measure as a result of wise and cautious use of vocational education funds.

The bottom line, ladies and gentlemen, I think your deliberations should be the continuation and future funding of vocational education in the United States, and particularly from my point of view for and among the community colleges of the United States.

I have been happy to be with you this morning. I would like to make one final remark. If it is the intent of the Federal Government to establish some 13 million jobs, it seems to me that you cannot do it, while at the same time reducing the funding in those very institutions which will train the people who will take those jobs.

Thank you.

[The prepared testimony of Joshua Smith follows:]

PREPARED TESTIMONY OF JOSHUA L. SMITH, PRESIDENT, BOROUGH OF MANHATTAN COMMUNITY COLLEGE, CITY UNIVERSITY OF NEW YORK

Ladies and Gentlemen: It is indeed a pleasure and an honor to speak briefly with you this morning as you weigh the myriad issues involved in continued funding for Vocational Education in the United States.

I am Joshua Smith, President of the Borough of Manhattan Community College of the City University of New York, and I believe that our institution and the uses we are making of vocational education funds are broadly representative of the goals, programs, services and problems experienced by most urban-oriented community colleges in the United States today. Thus I ask your forgiveness for any semblance of parochialism in my comments today: references to the Borough of Manhattan Communty College are meant to be illustrative of what is happening among community colleges generally.

Our institution presently is located in the very heart of Manhattan at 50th and Broadway and currently enrolls approximately 9,000 students. Our location an size will become more significant as I continue, but for now I want to tell you briefly about our students. For, if you have not taken a close look recently, you probably are unaware that the students typically enrolled in community colleges in the United States today are very "special", in "special" ways. In the jargon of our profession, these students are generally described as the "non-traditional" students.

At our college, "non-traditional" means that two thirds (or 6,000) of our 9,000 students are female. It means that 90 percent of our students—although they come to us with legitimate High School Diplomas or G.E.D.'s—nevertheless do not possess the fundamental skills in reading, writing, computation, etc. which are the prerequisites for college-level study and work. It means that their average age is 26, not 18. It means that by all prevailing and ligitimate criteria, more than 90 percent are eligible for one or more forms of financial aid from City, State and Federal sources. It means that nearly 50 percent of our students are married, and that 44 percent have one or more children. Finally and most importantly, the phrase "non-traditional" student at our community college means career and job motivation. An overwhelming 70 percent of our students are enrolled in career programs which they aspire to enter after graduation, or which they are already working in on a full- or part-time basis.

These data, alone, clearly indicate that unlike the majority of traditional, often highly selective four-year colleges and universities in this country, the community colleges are rapidly becoming the vehicle by which the vast majority of young Americans gain access to the world of work and become taxpayers rather than tax-revenue consumers. And there are not indications at present that this demand for career and vocational training will dimish in the near future. Quite the contrary, at my institution the demand is currently exceeding our resources! When registering students for the Spring Semester just a few weeks ago, we had to deny hundreds of students an opportunity to enroll in courses in Accounting, Business Management, Data Processing and Respiratory Therapy because we simply did not have—and could not generate—the additional resources needed to provide the necessary faculty and classroom facilities.

My first point for you ladies and gentlemen, then, is three-fold: first, that we in the community colleges accross this Nation are providing a vital educational and economic service to millions of "non-traditional" young Americans and their families; second, that in view of the defiencies in fundamental skills which these young people bring to us, we have a sizeable task to accomplish in both basic skills and career training; and, third, that the demand for career and vocational training in community colleges continues to escalate beyond the resouces we presently have available. We continue to offer programs of study in the liberal arts, from which students can transfer to four-year institutions to pursue their baccalaureate degree. But the balance at our institutions and at most other community colleges now stands at one-third liberal arts majors and two-thirds career and vocational majors. We expect this to continue.

Some of you may be wondering just how well we are doing, under the circumstances. I am happy to share with you the following information about our last graduating class, which consisted of 751 students. Five hundred of these students (approximately 67 percent of the class) successfully completed one of our career or vocational programs of study. Two-thirds of these students (approximately 330) were female. We now know that 78.4 percent of these career students are now working either full or part time and earning an average salary of $13,860.

By any standards, these figures are impressive. We are proud of them—as you should be. They indicate and confirm for all disbelievers that despite rhetoric to the contrary, vocational education and training are succeeding in the community colleges. These figures document our contribution to the improvement of employability and employment in urban centers. Since the vast majority of our students are members of black and Hispanic minority groups, these statistics (including the students whose career goals we cannot meet because of excess demand) demonstrate beyond doubt that young people today—especially minority youngsters—are not planning on lives on public assistance programs. They are preparing for jobs and careers so that they can carry their own weight in our society. And because 90 percent of our students more often than not are the first members of their families to attend any college, we believe that we are witnessing a turning point—a rejection, if you will, of the "laid back" syndrome of the 1950's and 1960's—in attitudes toward work and self-sufficient adulthood in general.

How, you may ask, are you able to achieve these results? Let me take a moment or two of your time to share with you how directly Vocational Education funds assist us toward achieving our goals.

We allocate Vocational Education funds within our college in accordance with principles which derive directly from changing needs at the local level. Working constantly with the Vocational Education Division of the State Department of Education (which keeps close watch on employment and occupational trends and needs across the State and in each region), we establish State, regional and local priorities which guide the allocation of resources within our college.

By far the most important priority for our college is developing and augmenting the skilled work force for New York City and the region. Established and located in the center of Manhattan, our college seeks to increase both the productivity and the economic development of the City and region, drawing heavily on Vocational Education funds. We are particularly proud of the fact that at present, more than 64 percent (or approximately two-thirds) of our graduates work in the private sector and that this figure is increasing steadily and substantially.

We believe that it is absolutely critical for us to maintain direct contact with the real world or work, particularly in those occupational families related to career programs offered at our college, in order to accomplish our institutional mission and our obiligations to our students. We go about this in a variety of ways, utilizing Vocational Education funds.

For example, for each occupational or career program in the college, we have established an Advisory Committee which consists of industry leaders, personnel executives, management consultants, industrial trainers, faculty and staff members from other institutions of secondary and higher education, as well as BMCC alumni who are working at entry-level and management positions in industry. Each committee is charged with the responsiblity of reviewing goal attainment, quality, programs, staffing, facilities, student progress and problems, etc. in each career program, with a view toward making positive, on-target recommendations to both faculty and administration. Their commitment and services have proven invaluable.

To build student understanding of the world of work, and to give them a "context" for the instruction and training we provide, we strongly encourage all students in our career programs to participate in our Cooperative Education Program. Student career specializations and personal interests are matched against employer needs, and by prearrangement with the college, students are placed in rotating, paid, supervised jobs for periods from six weeks to six months. And for our Business Administration students, we require that they spend half of their last semester of study in a related job in private industry. These features are working well.

We also offer help to the Business Community itself. For the past six years, using Vocational Education funds, we have sought to upgrade the management skills of small business owners through a variety of training programs. Since neither government nor private lending agencies provide this kind of assistance to small businessmen, and since we know from direct experience with the business community that a lack of management and planning expertise contributed significantly to the 72 percent increase in the bankruptcy rate in New York City, we developed and offered to them a practical, nine-week management course that currently enrolls more than 300 owners and operators of business in the City. The course of study includes business planning, financial planning, business law, record keeping, marketing, sales, taxation, inventory procedures, etc.

Many of these entreprenuers come from the poorest sections of the five boroughs of Manhattan. In addition, we take the program, itself, to the community and hold sessions in Harlem, Chinatown, on the Lower East Side, and in heavily Hispanic and other minority neighborhoods. We have had some uniquely interesting experiences in this program. For example, one of our "students-in-business" confided to the Professor in his class that although he had done everything "right" (so to speak), he nevertheless found himself with no patrons at his restaurant in the evenings. He had invested all of his life savings and had successfully borrowed additional capital from a local lending agency. His daytime clientele did not generate sufficient volume to cover his fixed obligations, to say nothing of any take-home salary for himself.

Our Professor, in this instance, went far beyond the call of "professional duty" and advised the owner to apply for a liquor license—which he then helped the student "ride herd on" through the maze of City and State agencies required to approve such an application. His business in now flourishing, and much to my personal surprise, we can now add to our academic portfolio a skill called "expertise in liquor licensing".

In all seriousness, however, I should add that this program has been so successful that we have been able to garner considerable financial support from the corporate and industrial communities to buttress and extend the funds we receive from the State Department of Vocational Education. And I should also say that the old adage of "one hand washing the other" is alive and well in this liaison between our community college and the business community. What we often receive in two-fold measure as a result of the assistance we provide to businesses in the community is an eager willingness to provide real jobs and training opportunities for students in all of our career programs, as well as for our graduates.

You might say, in general, that we devote a considerable amount of time and energy to upgrading skills—whether among students regularly enrolled in our college, or among the myriad businessmen and others who enroll in various training programs we offer.

A very clear example of this is in the area of Word Processing. You know, without my telling you, that we use our Vocational Education funds to acquire up-to-date equipment on which to provide the skill training expected of our graduates. For this help we are grateful, and we have maximized the availability of this equipment in a unique way.

After consulting with our Advisory Committee, with faculty and students, with alumni, and with personnel officers and industry leaders, we took a bet among ourselves that there were thousands of mothers seeking to re-enter the job market, thousands of secretaries desirous of improving their technical skills, and still more thousands of other persons just "out there" in our New York City area who would respond eagerly to an opportunity to upgrade their knowledge and ability in the Word Processing field, utilizing their time after work and in the evenings.

Believing that we should start small and grow with experience, we gingerly announced the availability of Word Processing instruction for 30 persons, beginning on a certain date. We were absolutely shocked and disbelieving when we had to turn away more than 600 qualified applicants. We are now responding and growing in this area, as well. And all the while, mind you, we are contributing significantly—thanks to Vocational Education funds—to the improvement of employability in the marketplace.

Over the years, our experience has been that it is necessary to keep a very close watch on what is happening in the industrial world in order to be able to anticipate and identify areas of need for specific types of skills, and to be able to target our Vocational Education resources so that we can meet these needs and provide jobs for our graduates. This kind of on-going manpower needs assessment and projection is especially important in large urban areas like New York City where we have experienced a radical change from an essentially manufacturing economy to a service-oriented economy, to—at present—a communications and high technology economy.

After exhausting the standard information sources and other resources, we found that there was no agency or bureau which could provide us with the information we needed and wanted. Government agencies keep tabs on vacancies in public agencies and on openings for unskilled workers in the private sector. There was no source of information that we could effectively use for placing skilled (i.e. trained) students in entry-level positions. Since nature abhors a vacuum, and since we had come upon an unmet, vital need, we decided to do something about it.

Using our Vocational Education funds, we have designed and are now putting online a computerized Employer/Employee Data Bank which stores and retrieves information about employers and jobs available in the private sector by type, skills required, salary, hours, and a host of additional information. At present, our Data Bank contains this kind of detailed information from 50,000 individual business firms in New York City, plus additional, more general information about the remaining 150,000 smaller firms. Already, we have found that this Data Bank is a highly cost-effective job locator, information system, and placement tool.

And to support the Employer/Employee Data Bank we are creating a Student Data Base in which stored skill profiles, personal interest data, prior job history, etc. for each of our students which can be called up on demand and matched against job vacancy announcements and requests for candidates for employment.

As one who—probably like a great many of you—appreciates the "Magic" of the computer and information storage/retrieval systems, I was elated not long ago when, during a demonstration, my administrative staff was able to ask our computer how many secretarial positions are vacant in Manhattan today. Receiving an immediate answer, they further queried, "And how many are available today at the New York Telephone Company? At Chase Manhattan Bank? At Metropolitan Insurance Company? What is the best salary being offered? Where? How many vacancies at this salary?" I am sure that you appreciate the incredible value of this tool to our institution and students.

In yet another supportive activity which we recently launched with Vocational Education funds, we are able to meet individual student interests and information needs on a minimally labor-intensive basis through our career resource center. Because of the high demand for assistance from our faculty at a time when our salary resources are shrinking, we used our Vocational Education funds to develop materials supportive of the curricula in Data Processing, Accounting, and Business Management which can be machine-stored and called up on demand by students (under the supervision, as necessary, of a Laboratory Assistant) as they review materials presented in lectures and prepare for examinations. The information system contains cross references which direct the student to more sophisticated or more simplified instructional sequences and review materials. And, at all times, the Laboratory Assistants are present to help students in ways that the machine-based information system cannot. We are experiencing a high volume of use in the Career Resource Center and are able to attribute improved student achievement and performance in class directly to their use of this resource.

In our medical programs, Vocational Education funds have again had a profound impact. Specifically, with this assistance we have established two Technical Laboratories in the Allied Health Sciences: one in Respiratory Therapy and one in Medical Records Technology. Through simulating hospital laboratores and requiring of all students in these programs a comprehensive clinical skills sequence, we are able to prepare our graduates to assume key leadership and service positions in the medical technology field. I boast NOT when I say to you that ALL of our graduates from these programs are now working in their field of concentration: One as Technical Director at St. Luke's Hospital Center; another as Technical Director at Columbia Presbyterian Hospital Center; another as Technical Director at The Memorial Sloan Kettering Cancer Center, and still another as Clinical Supervisor of Students at Morningside House, and yet another as Assistant Director of Medical Records at Bellevue Hospital. Our students, on the one hand, and the instititions which hire them in responsible positions, on the other, attest to the quality of training we are providing—in large measure as a result of wise, cautious use of our Vocational Education funds.

The "bottom line" of your deliberations, Ladies and Gentlemen, is the continuation and future of funding for Vocational Education in the United States—and particularly, from my point of view, for and among the community colleges of the United States. I have been delighted to be able to speak briefly with your this morning to share a birdseye view of what we have been doing as a result that there be no reduction in the level of funding we now enjoy.

If any program of Federal subsidy and assistance can claim that it contributes directly to the improvement of the economy of the United States, clearly vocational education is a frontrunner among them. If any Federal program can claim either that it offers the potential for women, Hispanics, blacks and other minorities to gain access to the mainstream of life in America, or that it offers realistic, achievable alternatives to surviving on the welfare and public assistance programs in this country, clearly Vocational Education is a frontrunner among them. If any program of Federal assistance can claim that it provides institutions with the wherewithal to maximize its local support so that it can meaningfully extend its services and programs to the millions of Americans who do not want to enroll in a degree program but do, indeed, want to continue to improve themselves, to raise their salary levels, to provide more fully for their own needs, then surely Vocational Education is a frontrunner among them.

My point is simply this: we in the community colleges across this Nation are serving our Country, our constituents, and those who choose to provide aid from Washington by enabling hundreds of thousands of "non-traditional" college students to improve their and their families' lots. I believe that this is what The American Dream is all about. We in the community college professional community devoutly hope that we can continue to count on your support. Thank you.

Mr. BIAGGI. Thank you very much, Dr. Smith.

I would like to take this opportunity to welcome you and I am just delighted to be in the chair while a representative of New York City is here, especially Manhattan Community College. I am thoroughly familiar with the work you do and you are to be commended.

I just have two observations. Apparently with relation to contact, Dr. Peterson made reference to it; Dr. Smith testified how he does it. Is that a universal situation, the practice of Dr. Smith, where computerized contacts with thousands of firms that Dr. Peterson mentioned, or is that singular?

Dr. PETERSON. Well, we found a great deal of variation in the programs we looked at. It seemed like the best programs had the greatest contact with the private sector. The contacts were not necessarily through computerized operations but by developing a familiarity with local firms, the firms that supply equipment to the schools, supplies to the schools, and the schools would provide graduates that could go into that particular industry. When vocational education seemed to be working at its best, you had that nice interaction between the private sector and the schools.

It is a chicken and egg problem, though. You need to have those contacts that have the kind of programs that students can really get involved in; at the same time, you have to have a good program for firms in the private sector that think it is worthwhile in the building of a relationship.

Mr. **Biaggi**. I am aware of that and I could not agree more. The question that appears in my mind is why haven't the advocates or those that have the programs, the schools that are in charge, made that a part of the total package? It is incumbent upon them to be aggressive in this area so that you can teach these young people, you know, these nontraditional people as Dr. Smith refers to them; but in the end they will be wandering about looking for an opportunity; yet there are people out there looking for this very type of employee. I mean, that should be an important component of the program, really.

Dr. **Peterson**. I could not agree more.

Mr. **Biaggi**. You should be very aggressive.

Dr. **Peterson**. Yes.

Mr. **Biaggi**. Are there any studies that determine what institutions do that and to what degree that they are failing?

Dr. **Peterson**. As far as I know, there is inadequate research in that area. We found many programs where there were almost no contacts in the private sector at all and these programs tended to be the less effective programs.

Mr. **Biaggi**. That would be obvious; but is there any information that could be made available to us?

Dr. **Peterson**. I will check and see if there is something I can provide the committee along those lines.

Mr. **Biaggi**. I appreciate it. One other reference to Federal participation. I have been told that the Federal participation is more inhibiting than encouraging, aside from the money it provides. Is that a true observation?

Dr. **Peterson**. Inhibiting in what area?

Mr. **Biaggi**. Bureaucracy and paperwork and the like.

Dr. **Peterson**. Well, the VEA has band-aided the establishment of advisory councils upon which private businesses set. These councils, unless they preexisted the legislation and had developed, sort of developed into the community on its own terms, these were just paper organizations that really had no meaningful relationship to the program; so I would say yes, the legislation has had very little positive effect. In many ways it just created structures and activities that had no purpose other than compliance. So you get procedural compliance, rather than substantive compliance with the objectives that Congress has.

Mr. **Biaggi**. Dr. Smith.

Dr. **Smith**. I would disagree with that statement. Yes, we do have extra paperwork, but that is the way of life with everybody these days. We have found that the creation of the advisory councils has enabled us to make the very kinds of contacts that Dr. Peterson has been talking about. We have in every single career area an active, an extremely active advisory committee. I will just take one. In addition to using VEA funds, the Data Processing Advisory Committee has been instrumental in raising private funds for the support of the program. We are very happy with the people who serve with us and we seek more.

Mr. **Biaggi**. Thank you.

Dr. **Peterson**. I would not disagree with that, because there are many programs of that quality and I am sure that the one in New York being described here is one of the exemplary programs where these councils have worked very effectively. Unfortunately, we did not find that everywhere.

Mr. **Biaggi**. I must leave. Like the chairman, I have another committee I must go to.

We are privileged to have Congressman Hawkins from California, who is the senior member, act as the chairman and take over.

Mr. **Hawkins** [presiding]. I am sorry for the interruption. We were just simply consulting on time. It seems that I was rather reluctant to take this if we had to again pass the baton to somebody else; we have interrupted so many times before.

I understand both you, Dr. Peterson, and you, Dr. Smith, must conclude this part of the testimony by 10:30. Is that the time situation?

Dr. **Peterson**. Yes, sir.

Mr. **Hawkins**. So we will try to hurry on then.

Mr. Kildee.

Mr. **Kildee**. Thank you, Mr. Chairman.

A couple questions to which all of you may respond. The administration has indicated that there will be a 20-percent cut in Federal funding for your programs in the fiscal year 1982. Could you describe the effect that those cuts will have on your program? Also will the State or local governments be able to take up that slack, as Messrs. Reagan and Stockman have indicated to us they could?

Third, in addition to cutting 20 percent in vocational education, a rather drastic cut in student aid has been proposed. Could you indicate how these three things may affect your program? We are assured by the President that they will not hurt vocational education.

Dr. **Peterson**. Those are difficult questions to answer. The effects are probably not going to be upset by increases at the State and local levels. Local support for education in general has been declining as you have had declining voter support for tax and bond referendums. The State contribution to education in general has increased in recent years, but you are finding at the State level the passage of constitutional amendments and spending amendments legislation which is going to make it difficult to get increments at the State level.

I would not expect to see offsetting moves at the State and local level to cuts at the Federal level.

In the area of vocational education it seems to me moneys could be saved by bringing programs together, rather than simply making across-the-board cuts. I think there might be other ways in which one could get cost savings besides across-the-board cuts.

Dr. **Smith**. With regard to State and local support, in the State of New York State and local support for the community colleges have been increasing over the past several years, although it has not kept pace with inflation. I think you are well aware of the precarious economic situation of the city of New York, but even there, there has been an increase in the amount of money available.

I think we would be straining the resources altogether too much if we asked the city to take up the slack if vocational education is cut. If we are cut back 20 percent, it will certainly decrease our flexibility. It will hamper our ability to respond to the needs of the market. It will hamper our ability to equip our course work with the most modern and up-to-date equipment.

With regard to student aid, I will be testifying about that later this morning; but to quickly give you some idea of what happened to us, already the President's message has telegraphed to the nontraditional student that there will be less money to go around and you may not be able to get the BEOG's, or at least it will be smaller. Many of them are not sophisticated enough to understand that it still takes the Congress to react to those proposals and some of them are already deciding that they do not want to come and they will find another way to carry on their lives; so they will be postponing the decision to return to school and that, I think, in the long run will not help the economy of the United States.

Mr. KILDEE. On that latter point, you certainly are correct. We in Congress have a constitutional prerogative and obligation to communicate to the President our own wisdom, our own consideration of his proposals. I fully intend to exercise that prerogative. I think you are right, that many people are ready to assume that what has been proposed is already consummated. I hope that will not be the case; but we will have, I think, a struggle. It is extremely important for vocational educators throughout the country to present to the Congress the effects of what I call a triple play. In my own State of Michigan, there will be a triple play, I think, on vocational education.

First of all, the student aids and postsecondary programs in the State of Michigan are in financial difficulty. I served 12 years in the State legislature there and spent four terms on the Appropriations Committee where we had to cut back money after it was actually appropriated. That is being done in Michigan right now. An additional loss for student aid, and a 20-percent cut, would be devastating to a program that is so intimately connected with jobs.

I think both the executive and the legislative branch are extremely important for the reindustrialization of our country; but you people, better than anyone else, can really put that message across.

Unfortunately, most of my mail on the President's address last week is summarized by such remarks as "bite the bullet, support the President, and you've got to stabilize the dollar." I firmly believe in stabilizing the dollar. I think we in Congress have an obligation to tuck in our wisdom; but we have to be reinforced by people like yourself who really are delivering these programs. It is extremely important to us that you speak out on the effect of these proposed budget cuts. There is almost a fear in this country of disagreeing with the White House, here in the Congress and elsewhere. Even some of those people who know full well that programs will be hurt, almost seem to fear of speaking out, because they will be considered unpatriotic and supporters of destabilization of the dollar.

I think we have an obligation to look at those priorities within those programs closely. We do need your help.

There is no profession more dependent upon the decisions made right here in Congress than education, where we really do need your input very badly. Thank you.

Mr. HAWKINS. Mr. Goodling.

Mr. GOODLING. Thank you, Mr. Chairman.

I might add to that, also having been a former educator, that there is no profession more suspect at the present time than that of an educator, unless it is the new profession that you and I have taken on, the profession of being a Congressman, so we do have a lot to sell to the public in both areas.

Dr. Peterson, did I get from your message that you believe there is more flexibility on the community college level in relationship to changing the direction in order to cope with the changing times in the private sector?

Dr. PETERSON. Yes, I think so. Our research on that question is not as thorough as I now wish it had been. It is something which we discovered in the course of doing our research was how important the community colleges and the junior colleges are, how important is the role they are playing in community education. I think their role has been steadily increasing in recent years. The role of the secondary schools has been declining, especially in urban areas.

I think it is due in part to the fact that jobs are being reserved for older people these days, and that young adults before the age of 18 are finding employment exceedingly difficult, and 60 percent of high school graduates are going on to some kind of future training and much of that future training is in junior colleges and community colleges and other kinds of postsecondary institutions. I think that if one is going to come up with some institutional areas that are flexible and responsive to people in the marketplace, and cost effective, and that would keep the costs to a minimum, those may be the institutional areas to work through.

Mr. GOODLING. Do you think the slack in the flexibility on the secondary level has something to do with the leadership and the staffs not being retrained, and that they should change their direction?

Dr. PETERSON. The American high school has been in operation since World War I. We have built a structure of a comprehensive high school serving the needs, one institution serving a wide variety of needs, and I think what we need to do in education on a long-term basis is to think of creating more flexibility in our secondary schools like we have in our postsecondary institutions.

Students in high school today are becoming increasingly disenchanted with that institution, and they are not easily disenchanted with postsecondary institutions. If we could somehow learn from what is happening in the junior colleges and community colleges and bring some of that knowledge into our high schools, it may bring some real progress. It might even make sense to extend the age categories that would be served by the community colleges and the junior colleges so that they could take kids less than age 18, go down to 16 or 15, and in that way you might be able to reach the people who are not being presently reached by our other educational institutions.

Mr. **Goodling.** I would say, after reading your conclusions and recommendations, that I hope Secretary Bell might have a place for you. There seems to be a lot of philosophy in your conclusions and recommendations, and since he is receiving advice from on high, you might be able to help him in this transitional period—not that I could put in a good word for you, because I have tried that with several others.

Dr. Smith, you talked about the 78 percent of the graduates of last year who are now employed. Do you know the percentage of those who are employed in the fields in which they were trained.

Dr. **Smith.** The overwhelming majority. And if we look at the entire cohort of alumni, you would find in our institution about 97 percent of them continue to live in Greater New York, and 75 percent of them are working in private industry, usually in his field in which they have trained.

Mr. **Goodling.** We have had a lot of testimony before us about training and equipment and the help they need for training and equipment, and I asked this question yesterday, so I would ask both of you, is there not some way we can have a better working relationship with labor and management in helping us with the training programs and with the equipment programs, because, of course, they are going to be the direct beneficiaries? By the time we would appropriate money and you would bid and you would get equipment, that equipment would be obsolete and you would have to start this whole business all over again.

It seems to me they are in a better position to train or retrain our vocational education teachers anyway. You may have a closer relationship in relation to training and equipment than a lot of people who have testified, because you probably have a real concern in your training and equipment program.

Dr. **Smith.** We have a close relationship as far as training is concerned. For example, we have interns. We have word processing and data processing interns.

So far as some equipment is concerned, we have done very well in getting donations. In terms of medical equipment and scientific equipment, from the highly technical equipment systems to word processors and computers, no, we don't even find a willingness to donate old equipment to us. The problem is that the technology is changing so rapidly that the computer firms, for example, will be much more interested in selling us computers. They just recently have sold us two IBM 4331's, and we are unable to get any donations out of IBM, although we tried.

Every student in the business program is required to serve an internship out there in the field, so they are exposed to the equipment. They may be better than what we have, and we need it in science and we need it in business.

Mr. **Goodling.** Then, of course, I would have to close with my part that I must play, sitting on this side of the aisle. We must remember that there is a trillion-dollar debt ceiling staring us in the eye, and if we don't do something about interest rates and if we don't do something about inflation, those jobs may not be available for any of those people who want to be employed.

That is my message from the administration. I haven't checked it with them, but I am sure that is the message I am supposed to give. So I have done that.

Mr. HAWKINS. It is spread upon the record, and you are stuck with it, I am afraid.

Mr. Williams?

Mr. WILLIAMS. Thank you, Mr. Chairman.

Dr. Smith, representing as you do nontraditional students who apparently make up two-thirds of your student body, I think I can appreciate your interest and their interest in programs, primarily Federal programs, which target aid to be focused specifically upon the disadvantaged and upon the Federal direction that requires dollars be made available, without consideration to race, dollars that are focused specifically for the mentally or physically handicapped.

These provisions have been accomplished during these past couple of decades, of course, through legislation, and quite often through regulation.

You didn't address, if I heard and read your remarks correctly, Federal regulation. Dr. Peterson, however, did, and if I might quote, and hopefully not out of context from Dr. Peterson's statement, I will then ask you, Dr. Smith, to comment upon it:

> Instead of attempting to regulate closely the use of Federal funds, Congress should confine itself to stating broad objectives and arranging in general terms an institutional framework for achieving them.

Now, I am leaving out part of the sentence here:

> * * * excessively detailed regulations are unlikely to enable achievement of desired objectives.

Would you comment on that for us?

Dr. SMITH. We have not found the regulations to be oppressive for us, and I know that there was a concern yesterday about the distribution of vocational education funds to urban areas, and there is a concern on the committee. Because of changes in the regulations, our college is on the list of eligibility for VEA funds that will be available to us in the forthcoming year. We had a sum of approximately $196,000 for which we could compete. Because the regulations were changed, we are now competing for $490,000.

I think that with many of the regulations and the intent of Congress, we have in effect given greater opportunity to the kind of student who is served in the community college, and I do not see the regulations as burdensome. Indeed I see them as requiring us to work with a population of students who may not have opportunity in any other way.

One of the things that I believe community colleges do is that they take the people that you have referred to, many of whom are consuming tax dollars in one way or another, and they turn them into tax producers. I think that is very important for the country.

Mr. WILLIAMS. Yesterday one of our vocational school administrators was here from my State of Montana, and in conversations with me in my office—I might say that gentleman also testified yesterday here in this room—he spoke of the fact that some regulations were burdensome and costly to his area of vocational centers in our State of Montana, and that that is the great dilemma for Federal focus. In passing these laws and making the regulations, how do we write them in such a way to continue to benefit you without being burdensome in Chicago or Helena, Mont.?

It is quite a chore, but we will try to get on with it.

Thank you, Mr. Chairman.

Mr. **Hawkins**. Dr. Peterson, this is the third day of hearings on vocational education, and almost invariably every witness has indicated that there is a tremendous need to not only continue vocational education at its current level but to expand it, and the overwhelming testimony has been as to how effective this would be in terms of preparing individuals to assume productive roles in society if we did so.

This is in very sharp contrast to another school of thought that contends that by reducing the funding for vocational education, and accepting not only the 20-percent cutback but possibly a little more, we can eventually eliminate, possibly, the Federal funding altogether. To what extent is this false economy?

I think you testified about the quality of vocational education when it is adequately supported by the proper resources.

Are we then on a long program here in Congress basing the issue completely on the question of whether or not we are going to have cuts, and would we be wasting the money if instead of cutting back, we actually spent the money and provided a means of helping these people to become productive? And, if so, to what extent do you believe that this would be more advantageous than what we are now doing or threatening to do? Out of the experience that you had in the four different cities that you have studied, what would be the impact of the 20-percent reduction?

Dr. **Peterson**. The impact of the 20-percent reduction in Federal funds for vocational education would be less than that 20-percent figure sounds because about 90 percent of the costs of vocational education are presently provided by State and local funds, so that the overall programs would not be reduced as much as that 20-percent figure sounds.

Nonetheless, I don't think that the difference would be made up by State and local governments, because they, too, are strapped financially and are going to be even more so in the next few years.

I am sure that there are ways in which economies can be made, and you can find ways of organizing service delivery more efficiently so that you can provide the same services for less. But I think it would take some pretty broad-scaled thing to make some major savings. We have at the present time vocational education programs in our high schools, we have programs in our junior colleges and in our community colleges, and we have our CETA manpower training programs. They are operating as independent entities; they are in conflict with one another. I think Congress and the executive branch together should think about ways of using these multiplicities of resources conjoinder in order to provide more social services, and in that way we might be able to get a higher quality service at lower cost.

Mr. **Hawkins**. Are you saying, then, that vocational educators today are involved in waste and mismanagement and inefficiency?

Mr. Peterson. Not the vocational educators but the kind of organizational structure——

Mr. Hawkins. I am confining merely to vocational education. You seem to indicate that there was some flexibility, that you could assume this 20-percent cut and you can make up for it in some other way. You indicate you can look to local support, but I think the testimony is that that is declining, so I don't think you are going to look there; plus the fact that the same logic would apply there. If it is economical and more cost effective to reduce Federal spending, it is also true that would be true at the local level, so you will have declining local support on the same logic, and I assume the States would begin to do the same thing. If the Federal Government is going to improve the economy by reducing spending in the economy, then perhaps they would decide they should do so also. That is pretty evident at this time, so you can't look to these local areas for additional support if the Federal support is withdrawn.

Are you suggesting that you can absorb the 20-percent cut and still maintain the same quality of vocational education as today and in some way possibly improve it because you are receiving a cut? Is that going to stimulate you to do a better job?

Dr. Peterson. Well, I don't have administrative responsibilities in vocational education, so I have the great freedom of being able to comment on this without having any responsibility for doing something about it. Nonetheless, recognizing that fact, I would suggest that economies can only be achieved by rethinking the institutional structure for the delivery of vocational education.

Think about this: Why do we have our present arrangements? Why do we have these three-tiered school services, different groups, different age groups, different social classes, different races? And isn't there some way we can bring them together and make the whole training program, the whole system of service delivery for vocational education and manpower training, much more effective than we presently have? I think we have to think about that.

Mr. Hawkins. Do you think you are going to bring that about? That is the point. And if it should be done, why isn't it being done now? Why do you need the 20-percent cut in order to force you to do something?

Dr. Peterson. I don't advocate the 20-percent cut.

Mr. Hawkins. You seem to be implying that despite the 20-percent cut, this is going to encourage groups to get together to remove institutional barriers, and that that is not already being done. Are the same people going to be inclined to become more competent because they've received a 20-percent cut? That seems to be the issue.

Dr. Peterson. I am suggesting that Congress and the executive not focus so much on their differences in this area as to find common agreement and new ways of providing vocational education services, and together they may very well find more effective means at whatever level it can be supported. Surely you can get better services if you pay more, but it might be possible to get better services without paying more.

Mr. **Hawkins**. In the meantime, those who are being turned away now—and I think Dr. Smith could testify that there are great numbers who are being turned away at the present time?

Dr. **Smith**. Yes sir.

Mr. **Hawkins**. They are being turned away because you do not have the resources for them, but if you did, you could graduate them and you could place them into productive jobs. In the meantime, what is going to become of those individuals if, instead of getting those additional resources, you will be getting less resources, and where will you make up that difference?

Dr. Smith, perhaps you might wish to respond.

Dr. **Smith**. Well, I think it won't come. I think there will be unemployment or they will be in extremely low-level jobs; they may be on welfare.

I testified about a single college. There are 60,000 community college students in the city of New York. They are, all of them, well served one way or the other by vocational education funds. At the moment in the vocational high schools in the city of New York, there are anywhere from 10,000 to 15,000 students on the waiting list for admission.

The demand is out there, and if we do cut back, it seems to me we will be able to serve fewer people, and certainly the flexibility my colleague has talked about in the community colleges will be eliminated because it is that extra money beyond our basic tax levy support that we get from State and city governments that enables us to do some of the creative things that we have done.

The institution that I am in was a very troubled one in 1977, and I never went after this kind of money. Now they do, and it has increased the morale; it has encouraged some faculty members to go out and have themselves retrained. You will find a career resource center in here. That one was directed by a professor of French who has a Ph. D. in French but who went out and enrolled in the NEVA program and then followed her students through all the career courses and sat through all of them, and now she is able to do something in a very creative way that buttresses the entire program.

If we lost VEA funds or cut them by 20 percent, we wouldn't be able to do that. We wouldn't be able to carry on the basic program that we have, and pretty soon we would have nothing but obsolete equipment and people who are overworked and overburdened because we wouldn't do the things we are able to do with that little extra touch that comes from VEA.

Mr. **Hawkins**. Well, do you think you are saving in any way by not providing that little extra touch? What are we doing it for? Why are we cutting back by 20 percent?

In what way does it help in a practical situation such as you've described to deny individuals an opportunity to become skilled in order to obtain the jobs that are there to be filled? How can we say that in some way we save?

Can you in any way locate any saving that is being affected by such a vote-ram or just a blunderbuss cut without any thought of where it is supposed to end?

I don't know, maybe I am mistaken but I can't see why we have so many individuals around who would believe such trash. Perhaps you can explain it to me. It is beyond my comprehension.

I have been in politics for 40 years. I guess I stamp myself as a professional, but I have never seen any period of time in which we have become so foolish, as in the current year of 1981, that we would try to sell something like this to the American public. It just doesn't make sense to me.

I haven't yet had anyone come before this committee or any other committee and show me that it is going to do any good. If it was going to do some good, I would be the first one to subscribe to it.

My colleague to my right, I know he is aching to say something. He is worried about the deficit and the national debt. Well, it is going to be increased if these people don't get jobs. I think it is pretty evident that it does not help to reduce the national debt by having nonproductive people around that we have got to support, people who are not going to produce anything and who aren't going to pay their taxes because they can't afford to do so. I have yet to find a witness who could explain this little simple study in economics that they taught me when I was in high school—and that has been 40-some odd years ago.

Mr. Goodling, do you want to say something?

Mr. GOODLING. Yes. "My colleague to my right" merely wants to indicate that I think what Dr. Peterson is saying is something I would agree with. No matter what the level of funding is on our educational programs, we have to find a better way to deliver.

For instance, in elementary and secondary education, who can say that by pouring in more and more and more local, State, and Federal dollars, which we have been doing year after year after year, we have improved the system? Everybody out there has been telling us it hasn't. The teachers and the administrators have been telling us it has not improved the system, that the system is going downhill in elementary and secondary education.

So I think Dr. Peterson's point is this: How do we, with whatever funds we have, deliver better? Dr. Smith, on the other hand, may be talking from personal experience, but that isn't the report we are getting from elementary and secondary education, which includes vocational education, of course.

I don't believe everything I hear from the public, in relationship to having been an educator for 23 years, but no longer do we walk away from the situation and say that because of this, this, or this, we are not doing a better job, because we are providing more local, more State, and more Federal funds.

When you talk about per pupil instruction and the cost, you can't justify it simply by saying that is because of inflation, because we have gone far beyond inflation. So we have to find a better way to deliver education to young people and to people of all ages in this country. That is my only argument.

Mr. HAWKINS. Well, the Chair appreciates the views of the gentleman to my right, but without being rude, I think we have gone beyond that 10:30 cutoff that was referred to.

Mr. KILDEE. Mr. Chairman, may I make a brief observation?

Mr. HAWKINS. Is it a very brief one?

Mr. **Kildee**. Very brief. I was remiss in not welcoming today my distinguished neighbor and a citizen from Michigan, Dr. Rowena Ayala from Detroit. I read through her testimony, and I find it rewarding.

While not a resident of Detroit, I did teach school there for my first 2 years of teaching, and I have a warm spot in my heart for Detroit. I have watched with interest the changes in education down there, and I appreciate your testimony this morning.

Dr. **Ayala**. Thank you.

Mr. **Hawkins**. May we, then, by consent, release the two witnesses, Dr. Peterson and Dr. Smith?

We certainly appreciate your comments and your testimony this morning. We know you do have a schedule to make, so we do release these two witnesses at this time.

Dr. **Smith**. Thank you, Mr. Chairman.

Dr. **Peterson**. Thank you, Mr. Chairman.

Mr. **Hawkins**. The other witnesses are Dr. Rowena Ayala, director of the Crockett Vocational/Technical Center, Detroit, Mich.; and Mr. John C. Cox, deputy superintendent of the Houston Independent School District of Houston, Tex.

Suppose we hear from them in the order in which they were presented. Dr. Ayala, we will hear from you first.

Dr. **Ayala**. Mr. Chairman, and members of the subcommittee, my name is Rowena Ayala and I am director of the Ethelene Jones Crockett Vocational/Technical Center operated by the Detroit public schools. I wish to thank the subcommittee for inviting me to testify this morning regarding vocational education in the city of Detroit.

I have prepared testimony related to the special problems of vocational education in the city of Detroit; types of vocational education programs offered by the school system; the needs of the student population we serve; how Vocational Education Act funds are being used; and recommendations for changes in the act that will improve vocational education programs.

In October 1975, U.S. Federal District Judge Robert De Mascio ordered the construction of five vocational/technical centers as part of the desegregation plan for the Detroit public schools. Funds provided by the 1976 Vocational Education Act Amendments helped to defray approximately 50 percent of the $55 million cost of constructing and equipping these centers.

The centers will service approximately 10,000 11th and 12th grade students from 22 Detroit comprehensive high schools providing them with access to over 37 vocational programs. All programs are, of course, open to both male and female students and special facilities will encourage participation by the physically handicapped.

Students who elect to go to the centers will spend one-half day at their comprehensive high school where they will be scheduled for their academic subjects as well as have the opportunity to participate in extracurricular activities. The other half-day will be spent at the center where the program offerings will provide them with training for jobs that fit their interests and abilities. Counseling, guidance and job placement services will also be available and the school district will provide transportation to and from the centers.

I want to mention briefly the four other centers before describing the Ethelene Jones Crockett Vocational/Technical Center.

The A. Phillip Randolph Vocational/Technical Center is expected to be ready for student occupancy in September 1981. The center which is located on the west side of the city will offer programs in construction trades, business education, electronics and horticulture/floriculture.

The Herman A. Breithaupt Vocational/Technical Center is located in the northwest area of the city and is also expected to be ready for student occupancy in September 1981. Programs in food management, production and services, automotive services, electronics, and appliance repair will be available.

Program offerings for the Cornelius L. Golightly Vocational/Technical Center which is expected to be completed by February 1982 will include transportation-related services, business education, food management, product and services, and horticulture/floriculture. The center will be located on a 9-acre site on the east side of Detroit. More than 1,500 students will be enrolled at each of these centers in either morning or afternoon programs.

The fourth center designed to provide aero space programs will be developed by expanding the facilities at our aero-mechanics high school. The center which will be located at the city airport is scheduled for completion in December 1981, and will offer programs in airframe maintenance and repair, powerplant mechanics, parts management, and avionics. Unlike the others this center will also function as a comprehensive high school. More than 500 students will attend classes for a full day.

The Ethelene Jones Crockett Center for which I have administrative responsibility was opened to students in September 1980. It is located in the medical center complex which is a short distance from downtown Detroit. The medical center, a group of five large health care institutions and supporting establishment, is one of the largest and fastest growing health complexes in the United States. In addition to the five health care institutions, Wayne State University's Medical School, several nursing homes, and the Southeastern Michigan American Red Cross Headquarters are at the perimeter of the area. Literally thousands of physicians, nurses, and other health care personnel work in this area, making the medical center one of Detroit's major employers.

Staff from these institutions and business establishments are serving on our advisory and planning committees and have made many of their facilities available to provide students with hands on experience in the world of work.

The program offerings at Crockett Vocational/Technical Center consist of health occupations, commercial and graphic arts, commercial photography, and business machine maintenance. Students enrolled in health occupations are being trained for positions as nursing assistants, surgical technicians, medical laboratory assistants, histologic technicians, electroencephalograph technicians, electrocardiography technicians, medical office assistants, ward clerks, dental assistants, and practical nurses.

The Detroit Practical Nursing Center for Adults is located at the center. An arrangement has been worked out so that our secondary students can enroll in a practical nursing training program during the 12th grade and complete the program shortly after finishing high school.

Also located in the Crockett Center is a dental clinic which was established in cooperation with the city health department. Crockett students enrolled in the dental assistant program obtain on-site experience by working in the clinic, which provides dental care to needy school children.

The Detroit public schools system and Wayne County Community College have developed an articulation agreement which permits students to earn college credit while still in high school.

Crockett Vocational/Technical Center is designed to accommodate almost 1,300 students. The administrative staff consists of the director, assistant director, and curriculum department head. There are 21 instructors on staff. We have also a counselor, a job placement specialist, a job developer, a special education teacher consultant and three secretaries. A Vocational Education Act grant of approximately $200,000 provides funds for the Crockett Center special needs project, which serves disadvantaged and handicapped students. With this grant, we are able to provide a special needs team consisting of a coordinator, two counselors, nine special instructors, and a basic education teacher who assists the student with problems in reading and mathematics. This is a valuable part of our program, since many of our students require special assistance.

Prior to opening of the center, a series of in-service workshops were held to develop curriculum materials which are used to train staff in competency-based instruction and to provide experiences that would facilitate group cohesiveness. Professional growth activities have continued throughout the year. Over half of the staff are currently enrolled in a Wayne State University field-based course, which is held at the center.

Students living in a large urban city such as Detroit are part of a rapidly changing, highly mobile, technological society. Many suffer from pervasive effects of discrimination and racism. They frequently lack the personal understanding to themselves in relation to the world in which they live. In order to help students overcome these problems, we have established a support service department. The goals of the support service department are to increase to the highest possible degree the student's growth and to help him or her achieve self-understanding, self-direction, and self-discipline. Through individual, small group counseling and other guidance activities provided by the support staff, students are gaining additional skills to resolve special problems that cause patterns of poor attendance, low aspiration levels, conflicts in values, interpersonal conflicts, and social conflicts in the community.

During the 1975–76 school year, Vocational Education Act funds were provided to the school system to initiate a school-based job placement program. This program has been expanded to include 10 high schools, each of which has a comprehensive information system. This information system, which was developed through the combined use of Vocational Education Act funds, CETA funds, and funds made available by the Michigan Employment Security Commission, is a good example of cooperation among Federal and State governments and a local education agency. The support service department at the Crockett Center includes a job placement program and a comprehensive information system.

In order to fully utilize our facility and better serve the community, we recently started an evening adult program. The demand to participate has been so great that this program will be expanded considerably during the next few years.

Although we are satisfied with the progress that has been made at the Crockett Center and in our vocational education programs throughout the city, there is substantial room for improvement. This improvement cannot be brought about with increased funding alone but requires innovative approaches and active assistance from persons and groups from both within and outside the educational establishment.

Some of the obstacles which seriously hamper the effectiveness of vocational education programs and changes in the current act which will help overcome these obstacles are:

One, lack of support for prevocational and exploratory vocational education classes: Currently, the use of Vocational Education Act funds is limited to support for vocational education classes that are designed to provide students with entry level skills. Lack of funds has prevented many school systems, especially those in large cities, from providing adequate opportunities for students to enroll in prevocational and exploratory vocational education classes.

As a result many students reach the 11th grade without adequate experience upon which to base course selection and/or the necessary background to obtain maximum benefits from entry level preparation classes. Also, many students graduate or otherwise leave school without having had adequate career exploration opportunities.

Funds should be made available to local school districts so that they can provide adequate prevocational and exploratory opportunities for all students. Since funding will not be available to support adequately vocational education programs at all levels, individual school districts should have greater flexibility in deciding how their own allocations should be spent to best serve the students.

Two, need for more opportunities for staff to participate in meaningful in-service training: Effective vocational education programs require that staff be familiar with the current state of the job market, the requirements for successful entry into the world of work, and the preparation students need in order to complete successfully post-high-school training programs. Declining enrollment currently taking place in most large city school systems has resulted in fewer teachers who are fresh out of college being added to teaching staffs of these school systems. This lack of fresh input is contributing to the widening of the gap that already exists between high school graduation and successful entry into the world of work.

Opportunities for existing staff to enroll in programs designed to update their qualifications and teaching methods should be made available through grants similar to those provided by the National Science Foundation for mathematics and science teachers. These programs should include participation by private industry, labor and trade organizations, and supported by the new act.

Three, need to provide tools and other equipment required for certain entry-level jobs: Many youths who are enrolled in high school vocational education programs lack sufficient funds to purchase tools and other equipment as a condition of employment in a cooperative education program. For example, a participant in a cooperative education program in diesel mechanics is required to furnish his or her own tools, which cost approximately $350. As a result, these youths are unable to take advantage of promising career training opportunities and must seek less desirable cooperative education experiences.

Provisions should be made in the new act to provide assistance in the form of subsidies and/or low-interest, deferred payment loans to qualified youths, so that they can purchase tools and other equipment required for cooperative education jobs.

Four, need for more involvement by private industry in planning and carrying out vocational education programs: Since most jobs exist in the private sector with employers determining whether or not job applicants possess the necessary skills and qualifications to be employed, it follows that employers should have meaningfull input into the design and operation of vocational education programs.

Bridging the gap between high school graduation and successful entry into the world of work can only be accomplished when schools and prospective employers clearly understand what is expected of each other and mutually develop solutions to problems arising out of these expectations.

The new legislation should provide incentives in the form of tax credits, beyond which is already provided for in the Revenue Act of 1978, or even subsidies, for employers who work with schools to increase the vocational education opportunities available to youth. Support is especially needed for small businesses, who usually have limited budgets for activities of this type but employ more than one-half of the labor force.

Five, grants should be made directly to large city school systems: On a per-capita basis, inner cities are not receiving their share of funds made available under the current Vocational Educational Act. A recent study conducted by Alan Woodruff, a U.S. Department of Education consultant, showed that inner cities have 22.8 percent of the Nation's population but only 13.3 percent of all secondary education vocational education training stations.

Only since the 1976 Federal court order issued by Judge De Mascio, have VEA funds for area vocational centers been awarded to the Detroit Public Schools in appreciable amounts. Between 1975 and the 1976 Federal court order, Detroit received $2 million of the $27 million expended in Michigan for area vocational centers.

The unequitable distribution of Vocational Education Act funds can be alleviated by including provisions in the new act that will:

One, permit grants to be made directly to large city school systems in a manner similar to that used by the U.S. Department of Labor to award Comprehensive Enrollment and Training Act funds directly to large cities;

Two, contain a formula for distributing funds that will take into account the adult unemployment rate, youth unemployment rate, and poverty rate;

Three, require that funds be distributed to local education agencies on a basis similar to the one used to award funds to State education agencies; and

Four, place limits on the percentage of VEA funds that can be retained by the State education agencies for administrative and supervisory functions, and for discretionary grants to local education agencies.

Again I would like to thank the members of the committee for this opportunity to testify and will conclude by saying that the young people of Detroit have profited from those programs you have sponsored. We are not satisfied with the current unemployment rate among young people in Detroit, but we feel that these programs will make it possible for a substantial number of high school graduates to successfully enter the world of work.

I will be happy to respond to any questions from the members of the committee.

Mr. HAWKINS. Thank you.

Mr. Cox, you are the concluding witness.

May I suggest to the witnesses that to the extent possible that the testimony be briefed. The full testimony in its entirety will be in the record without objection and we hope that those bells which indicate that the House will be in session shortly will not interfere, but we certainly hope to complete testimony this morning before we are called to the House for a vote.

With that slight interruption, Mr. Cox, it is not intended to limit you in any way. We hope that we will be able to accommodate you in every way possible. Would you proceed.

STATEMENT OF JOHN C. COX, DEPUTY SUPERINTENDENT, HOUSTON INDEPENDENT SCHOOL DISTRICT, HOUSTON, TEX.

Mr. COX. Mr. Chairman and members of the subcommittee, there is always something unique about being last, I guess; but for fear that we might lose the distinguished chair, I shall not read this testimony to you. I will make some opening comments that I have in the testimony, visit with you on some charts that I brought up from Texas that I think you will find unique. You will find copies of the charts in the testimony you have.

I am John C. Cox, deputy superintendent of the Houston Independent School District, and we are delighted that you have invited us to be here this morning.

The United States today faces a two-pronged problem which if allowed to fester will affect our Nation for generations. Unemployment and underemployment coupled with skilled job opportunities which go begging is a concern which must be addressed by the American people.

One answer to this twin concern is education, education soundly grounded in the real world. We must provide innovative, imaginative, quality programs which reach all young people and adults, the disadvantaged, the handicapped, the limited English proficiency students and those who have been turned off with what we know as traditional tools or traditional education.

Vocational occupational training may be the best link that we have for this group.

Vocational education must reach all students if our economy is to thrive into the 21st century. The vast majority of the jobs today require technical skills. Tomorrow's job market will be even more technical if current trends continue. And I submit to you this morning that they will.

Vocational programs must address real opportunities in the working world. We must couple education with industry to assure candidates will be able and available to fill business and industry requirements.

Training for employment in the State of Texas is a concern of many different institutions. The first poster I have here will demonstrate for you those institutions we have in Texas who are providing vocational training. I shall not read them to you. I think you can see them.

Mr. HAWKINS. Could I interrupt to ask whether or not that chart is included in your material?

Mr. COX. Yes, sir, it is included.

Mr. HAWKINS. Thank you.

Mr. COX. And I wanted to here only demonstrate those institutions which provide training in Texas. I would suspect this is probably true throughout the United States.

Also, the lower part of my chart here indicates the number of people we have who are being served by these various institutions, showing a total of 1.1 million students in secondary, postsecondary and adult training in the State of Texas.

The second chart I have for you, I wanted to give you some feel for the Houston, Tex., area, the fifth largest State in the United States. You can see here by this chart, we have 1.7 million people in the city of Houston.

And 23.8 percent are black.

Also, 15.5 percent are Hispanic.

And 60.7 percent are classified as others.

The unique part of this chart is the lower section. In our school districts K through 12, we had an enrollment of 194,043 students.

The black percentage of students is 44.9 percent; Hispanics, 27.8 percent. Only 27.3 percent fall in the other category.

This is a unique kind of something that we have to live and deal with within our inner city.

Our board of education and members of the city of Houston did bite the bullet, as one of the Congressmen spoke of earlier. In 1976 we were brave enough to go to the citizens of Houston and say, "Hey, if you want quality education, provide us some dollars to do it." We were successful in passing a $297 million bond election.

The unique part of this particular chart, if you take the four phases we broke our funds down into; for education, direct instructional classroom facilities, in phase 1 we have $74 million. You can see by our chart, vocational education received $28 million, a total of 39 percent for vocational facilities and equipment.

Phase 2, that was $54 million. Vocational education received $5 million, or 10 percent.

Phase 3, we had $29 million. Vocational received $10 million, or 35 percent.

In phase 4, which we have not come to yet, $29 million; vocational education will receive $1 million, approximately 4 percent of those particular funds.

Coupled with that, we had to promise the members of our city that we would do something about the achievement level of our students. This chart will demonstrate to you what has happened in the Houston area. If you will take national norms, starting with the first grade, the national norm would throw you for the first grade students around 1.8. You will see that Houston students test out on the ITBS above the national norm.

The same thing is true for grades 2, 3, 4, and 5, with grade 6 at the national norm at the present time.

This is a result of several things that have happened in addition to the bond election. We have been required by our folk in the city of Houston to do something about the achievement level of our students. Therefore, you will find one of the charts that will indicate to you where our students are now required to satisfy an attendance policy in our district. Any student with 7 days unexcused absences will not pass a course in the Houston district. The board of education accepted this proposal from the administration. The citizens of Houston bought it and as a result our attendance has increase 95 percent in the Houston district.

Along with that, we have a program in the district that we call the second mile plan, where we encourage teachers to be more effective by providing a strong incentive program. If they work in inner city schools where we have many, many problems, they receive a special incentive pay for that. For good attendance they receive an incentive pay for that.

For raising the achievement level of our young people whose charge is their responsibility, once they raise it up to a certain level every member of that particular campus will also receive an incentive pay there.

So we have done any number of things to provide some incentive for our teachers so that they will be more accountable in working with the kids in the Houston district.

We also have what we call fail safe, where we involve the parents with what is going on in the school and 4 days a year our students are not in the building and we invite parents to come in, sit down and visit with teachers and plan the strategies for their young people as it relates to the education of those kids from K through grade 12. We feel these things have done a tremendous job for us in helping to bring about quality education in the Houston School District.

We have something else that we think is unique. Several years ago in working with the desegregation issue, we had what we call pairing of schools. Our Justice Department said and our Congress said that it is not legal, our courts. We have to go to something a little more sophisticated. In 1975 we established what we call magnet schools. Our magnet schools are throughout the Houston area and the magnet schools will do exactly what a magnet does itself. It tends to draw kids from throughout the greater Houston area into specific schools with a specific curriculum.

This chart here will show you several magnet schools. I would like to mention one, for the sake of time, the high school for health professions, which is a nationally known magnet school that is in the Texas Medical Center in the Houston area. Here we are in partnership with the Texas Medical Center and Baylor College of Medicine. We have provided an $8.8 million structure there for secondary and postsecondary training for our young people.

At the bottom of this chart you will see special vocational schools. We know many times we miss youngsters for whatever reason. We are providing for the uninvolved youth and potential dropouts some additional curriculums in special schools in order to meet the needs of that particular population. I thought you would be interested in knowing that.

This map here will demonstrate to you the location of our magnet schools as it relates to the Houston area. Outlined in red you see the boundaries of the district and the little dots with the arrows will point to you those vocational magnet schools that I referred to.

In addition to these, we have many, many other magnet programs, but I wanted to highlight for you the vocational magnet schools as it relates to our testimony here this morning.

We also are trying to address the problems of sex bias, sex stereotyping. This particular chart here will demonstrate and show you here how we have members of the opposite sex now involved in nontraditional kinds of training. You can look to any of these and you will see both males and females who are currently enrolled in vocational programs. So we are very definitely trying to move in a positive direction in terms of addressing all of our young people in the city of Houston and getting for them the best quality training that we can make, regardless of their sex.

Getting down to our department, you would be interested in knowing that we have 77,061 in secondary vocational programs. In the secondary 7 through 12, we have approximately 90,000 young people.

In the job entry job preparatory kinds of training, we have 20,037 students.

Of that number, we show here 3,372 who are disadvantaged in a program we call CVAE.

We have another 596 students who are handicapped. We are proud of the 157 who are mainstreamed into regular vocational programs.

You will notice another 16,124 who are in regular programs. I submit to you this morning that we have far, far many more youngsters in the 16,000 bracket who should have some specialized training in the CVEA or handicapped; but due to the amount of funds we have available, we have not identified those kids because at the present time we are not able to provide for those kids the kind of training that we feel they should have under that special category.

So what we are doing is tailormaking our regular program to do our best to meet the needs of those particular youngsters.

We have also 621 teaching units vocationally approved and another 250 units that we have in the district that are nonvocational funded within our division.

I think you will find this little chart interesting. It demonstrates the flow of funds into the district. We have approximately $15.3

million coming from our local taxation; another $10 million from the State and from Federal funds we receive $2.3 million, which will give us approximately $25.6 million budget to operate all programs for the 77,000 kids in the Houston district.

Inflation also has had its toehold on us, as we are demonstrating to you on this particular chart. If you will look back in 1975–76, we had a budget of $13.8 million. We could buy goods and services in the area of $13.8 million; but if we jump over to the 1980–81 school year, you see we have a $25 million budget. Services and goods, we can only purchase $16.4 million worth of goods and services.

Our budget has increased 85.5 percent; purchasing power is still as low as 18.8 percent.

We are very proud of our next chart that will demonstrate some concerns that some of you have as relate to our industry today. Here you will see a followup on our statements for the year 1979–80, done by our teachers and our placement center. I do not want to read all these figures because of time, but if you will notice in the lower right hand corner we indicate to you that our placement rate is in the area of 71 percent of the students who are leaving our programs, who are ready to be placed in the job market or in the job market working for employers. We feel that that is very, very definitely something that all of us should be proud of as it relates to all programs in the Houston School District.

All of this is done in total cooperation with business and industry.

I show to you here a chart that shows the people who are involved in the training programs that we have in the district. You might note at the top, and it just worked out that way because this is in alphabetical order, the very first person there is with the CETA program. If you look at the very bottom name you see a representative from labor. We all work together in the Houston district to deliver vocational education services to our young people.

Just below the bottom you see a parent who also serves on our overall advisory committee.

The last chart that I have for you will sort of depict how we are involved with all institutions in the Houston area, whether it be postsecondary education, whether it be industry and business, whether it be apprenticeship programs, whether it be CETA, we are all working hand in glove to deliver the services. There is a big job in the community and we feel it takes all of us pooling our resources, our minds, and our efforts, in order to deliver the services that we know kids must have.

Despite Houston's booming economy, there continue to be those who are not a part, who for some reason of handicap, disadvantage, or limited English or stereotyping, are not fulfilling their full promise. These are the needs we as educators must address.

It is most important for Congress to understand several factors dealing with vocational education in the large urban school districts and in particular the Houston Independent School District.

One. Additional Federal funds would provide an opportunity for improving the effectiveness of current programs for the disadvantaged and the handicapped. For several years I have been real concerned about those special education students who cannot profit nor benefit from a regular vocational program, nor can they benefit from the segregated vocational education programs for the handicapped, because of their level.

I firmly believe we need to do something in establishing sheltered workshops for those young people where we also can place these kids in an area where they can gain some vocational skills and they can be self-supporting and they can be taxpayers, rather than tax receivers.

The Houston Independent School District, through its programs, must address the unique needs of the disadvantaged in the inner city. They must address the needs of the disadvantaged students in the inner city. As you know, many of our families have moved to the fringes—I call them the bedroom communities and as a result we have left in the inner city a whole nest of disadvantaged, handicapped students. We must deal with those students. We need your help and we need your guidance and we need your funds to help us address the unique needs of those students as it relates to some of the other kind of services they need in order to bring them up to a level where they can read a technical book, where they can figure, where they understand physics and chemistry and math; so we need some additional funds to be able to bring these kids to a level where we can educate them as it relates to the technical fields.

There is a great need to serve students between the ages of 11 and 13 who demonstrate little or no interest in formal education. Federal funds can provide career development programs in the area of occupational orientation and exploration for these students. We must address those kids at that age. If we do not, in the inner schools we are finding when they are 16 and move into vocational programs, we have already lost them. Then we have to go back and try to pick them up, bring them back into the system and retrain them. If we can pick these kids up while their interests are high and involve them in some vocational training, I believe that we will be able to manage to keep them in school and get them hooked into a vocation of their particular choice.

We must constantly update the equipment and tools used to train students in all vocational programs. Graduates must leave school with salable skills necessary to step into industry. The way to guarantee this is to assure that students learn today's skills, not yesterday's.

We definitely feel that the equipment program must be updated from time to time if we are going to keep our kids current, where they can move directly into the job place and be productive citizens.

Vocational education must meet the challenge. It is the best answer to our unemployment problems. Vocational education can and must provide people of all ages with a strong education, the skills of a trade, and the respect for work. The vast waste of human potential must stop.

It is our challenge to see that this waste is eliminated.

I certainly hope I did not go too fast for the reporter, but I wanted to visit with you on what I had, bringing it all the way from Texas. I wanted you to have a chance to visit with me on it and I certainly do thank the committee for this opportunity.

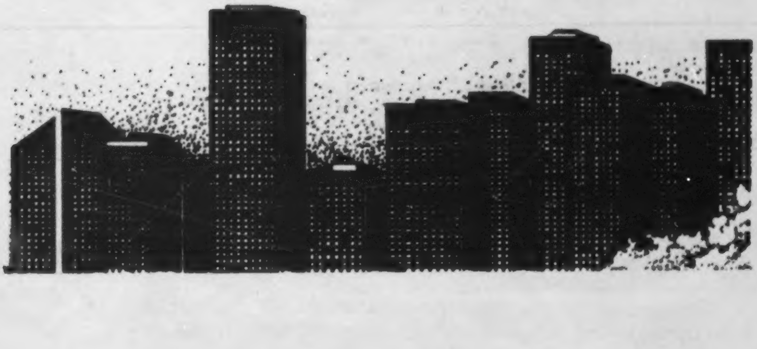
[Material submitted by John Cox follows:]

Prepared Testimony of John C. Cox, Deputy Superintendent, Occupational and Continuing Education Division, Houston Independent School District

HOUSTON
INDEPENDENT
SCHOOL DISTRICT

OCCUPATIONAL
and
CONTINUING
EDUCATION

February 26, 1981



REAUTHORIZATION OF VOCATIONAL LEGISLATION
with
LARGE URBAN SCHOOL DISTRICTS IN MIND

presented to

Education and Labor Committee

The Honorable Carl D. Perkins, Chairman

Washington, D. C.

February 26, 1981

HOUSTON INDEPENDENT SCHOOL DISTRICT
3830 RICHMOND AVENUE
HOUSTON, TEXAS 77027
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Occupational and Continuing Education

The United States today faces a two-pronged problem which if allowed to fester will affect our nation for generations. Unemployment and underemployment coupled with skilled job opportunities which go begging is a concern which must be addressed by the American public.

One answer to this twin concern is education---education soundly grounded in the real world. How do we assure that today's educational systems are grounded in the real world? We assure it by providing programs which answer the pressing needs---basic skills, education, bilingual instruction for limited English proficient students, and occupational skills training. We must provide innovative, imaginative, quality programs which serve these needs and reach all young people---the disadvantaged, the handicapped, and those who have been "turned off" by the normal educational channels.

Vocational occupational training may be the best link we have to these groups. Involving young people in skills training often sparks their interest in the other aspects of education. A student who finds math "boring" may see it in a different light when calculations become important to learning skills in electronics, or drafting, or marketing.

Vocational education must reach these students---indeed, vocational education must reach all students if our economy is to thrive into the Twenty-First Century. The vast majority (over 80% by government projections) of all jobs today require technical skills. Tomorrow's job market will be even more technical if current trends continue.

Students must be trained for these jobs. Vocational programs must not teach the skills of the past but the skills of the future. Vocational programs must address real opportunities in the working world. We must couple education with industry to assure candidates will be available to fill business and industry requirements.

Training for employment in the State of Texas is a concern of many different institutions and organizations, each of which has its own funding sources and controls.

Union funds finance apprenticeship programs. Private funding is used to finance vocational training programs in private schools and to back job programs of Private Industry Councils, which also receive substantial CETA contracts. All CETA programs are federally funded and controlled by the local mayor's office.

The bulk of job training in the State of Texas is, however, the responsibility of public educational institutions. Programs are offered in 950 school districts, 48 community colleges, and through the Texas State Technical Institute System.

The public secondary schools of Texas serve 600,000 students in vocational education programs. (An additional 500,000 are served by post-secondary and adult programs.) Administered by the Texas Education Agency and local school districts under policies established by the State Board of Education and local District Boards, the public secondary vocational programs are funded by federal, state, and local dollars. The 1980-81 federal budget for vocational education programs in Texas is $36,374,745. Of this amount, $8,551,838 is being spent by the eight largest school districts (Houston, Dallas, San Antonio, Ft. Worth, Austin, Corpus Christi, El Paso, Ysleta). The eight city school districts serve approximately 203,387 vocational students. In other words, 34% of all vocational students in Texas are being served by 23% of the budget. (See Chart I on page 3.)

The Houston Independent School District---the largest in the state---operates in an environment that is, in many ways, unique. Houston, the nation's fifth largest city, has, by the federal government's own standards, a full employment economy (3.7% unemployment). Local newspaper want ad sections bulge with

VOCATIONAL EDUCATION IN TEXAS

INSTITUTIONS	FUNDS	CONTROLL
• SECONDARY INSTITUTIONS GRADES 7-12	FEDERAL, STATE, LOCAL	LOCAL BOARD OF EDUCATION
• POST SECONDARY INSTITUTIONS - ADULTS	FEDERAL, STATE, TUITION	LOCAL BOARD OF EDUCATION
• CETA	FEDERAL	MAYOR
• PRIVATE INDUSTRY COUNCIL	PRIVATE, CETA	PRIVATE INDUSTRY
• PRIVATE SCHOOLS	TUITION, CETA	PRIVATE OWNERSHIP
• APPRENTICESHIP PROGRAMS	PRIVATE, STATE	LABOR UNIONS

STUDENTS SERVED IN TEXAS

LEVEL	ENROLLMENT	TOTAL FUNDS	8 LARGE DRISTRICTS	
• SECONDARY	635,605	$23,612,825	*E 141,167 F $7,696,660	22,2% 29.3%
• POST SECONDARY	316,156	10,138,273	UNKNOWN	UNKNOWN
• ADULT	178,894	2,623,647	*E 62,220 F $855,178	34.7% 32.6%
TOTALS	1,130,655	$36,374,745	*E = ENROLLMENT F = FUNDS	

CHART I

UC

job openings (mostly in highly technical, skilled fields). One thousand five hundred new people move into the city each week.

But Houston is not without problems---many of the same problems that plague other large cities.

The Houston Independent School District, which encompasses 312 square miles in Harris County, is an inner city district. Of the 170 elementary schools in the District, 60 (serving over 37,000 students) qualify for Title I funding. HISD total enrollment of 194,043 for 1980-81 is 44.9% black, 27.8% Hispanic, and 27.3% white. The concentration of minority students in HISD presents the District with more handicapped, disadvantaged and limited English proficiency students to prepare for a place in a society and an economy which increasingly requires a strong education and technical skills. (See Chart II on page 5.)

The Houston Independent School District has made a commitment to these students---and all HISD students---to provide a realistic education for today's world. As part of that commitment, HISD has embarked on a major facility improvement program funded through public bond money. The construction of occupational/vocational facilities constitute a major thrust of the building program. Phase I (now virtually complete) authorized $74,391,362 for new buildings and renovation of old facilities. Of the total, $28,937,391 was targeted for vocational facilities, including the construction of new buildings for two vocational magnet schools (the High School for Health Professions and the Barbara Jordan High School for Careers) as well as a new vocational wing at Charles H. Milby Senior High to house a Building Trades Magnet Program.

The Second Phase of the building program, budgeted at $54,564,128 concentrates most heavily on elementary school construction. Even so, $5,454,000 of the budget was earmarked for occupational/vocational facilities including construction of a new facility for the High School for Performing and Visual Arts.

CHART II

HOUSTON - 5TH LARGEST CITY IN THE UNITED STATES

- POPULATION 1.7 MILLION

RACE	NUMBER	PERCENTAGE
• BLACK	396,339	23.8%
• HISPANIC	258,823	15.5%
• OTHERS	1,110,698	60.7%

- UNEMPLOYMENT RATE 3.7%

HOUSTON INDEPENDENT SCHOOL DISTRICT

- ENROLLMENT K-12 194,043

RACE	NUMBER	PERCENTAGE
• BLACK	87,102	44.9%
• HISPANIC	53,917	27.8%
• OTHERS	53,024	27.3%

Phase III shows $10,379,944 of the total $29,326,720 budget targeted for vocational facilities including renovation of the building which houses the High School for Law Enforcement and Criminal Justice. In Phase IV, $1,080,000 of the $29,781,000 total is earmarked for vocational purposes. (See Chart III on page 7.)

Modern facilities are only a part of HISD's commitment to its students. Achievement and quality education for all is the Houston School system's primary goal. It is a goal that is being attained because of several innovative programs.

For instance, HISD has instituted a rigorous attendance policy. A student who has seven unexcused absences in the course of a semester is denied credit. The policy has worked. Average daily attendance in HISD for the current school year is 95%.

HISD knows that getting and keeping good teachers is often the difference in a student achieving or failing. To decrease teacher turn-over, the Houston District has developed a teacher incentive program, called "The Second Mile Plan." Under this plan, teachers in Title I schools or who are in "high priority location" schools (inner city schools) receive stipends as do those who teach in areas of critical need, such as, special education. Teachers may also earn stipends for perfect attendance, advanced course work, and recruiting other teachers to HISD. In addition, all faculty personnel in schools which show significant growth in achievement scores are eligible for extra pay. HISD is recognizing excellence and dedication in its professional teaching staff.

Teachers and school districts cannot alone insure that all students achieve up to their full potential. Parents must be involved. The Houston School District's Fail Safe program has drawn national attention for its pioneering efforts to include parents in all aspects of their children's education.

HOUSTON INDEPENDENT SCHOOL DISTRICT

BOND ELECTION - 1976 $297 MILLION

PHASES	TOTAL APPROPRIATION	VOCATIONAL FACILITIES	VOCATIONAL PERCENTAGE
PHASE I	$74,391,362	$28,937,391	39%
PHASE II	54,564,128	5,454,000	10%
PHASE III	29,326,720	10,379,944	35%
PHASE IV	29,781,000	1,080,000	4%

CHART III

These programs have worked. Test scores show HISD students achieving at levels higher than those in other districts with a comparable socio-economic population. Analysis of standardized achievement test scores for the 1979-80 school year shows that the average academic achievement of students at every elementary grade tested in the Houston School District meets or exceeds the national norm. (See Chart IV on page 9.)

Perhaps the most innovative of all HISD programs designed to help students achieve and succeed in society after graduation is the Magnet School program. The Magnet School Plan was developed and implemented in 1975 to meet two specific objectives:

1. To provide programs whose quality education would attract students to them voluntarily, and
2. To increase the percentage of the students attending integrated schools while decreasing the number of one-race schools in the District.

Each Magnet School program includes both a strong academic program and a special curriculum designed around the needs, interests, and abilities of the students. There are magnet programs on all grade levels. Elementary magnets include fine arts and music, math and science, ecology and outdoor education, multicultural education, and a "vanguard" program for the gifted and talented. Many of the magnet programs at the secondary level are vocationally-based.

The Vocational Magnet Schools in HISD also participate in the Voluntary Interdistrict Educational Plan, a pilot program begun this school year with the cooperation of HISD, surrounding suburban school districts, and the Texas Education Agency. The plan encourages suburban students to attend HISD vocational magnet programs, tuition-free, with transportation provided thus increasing integration in HISD and the educational opportunities of the participating students.

FIGURE 1

**AVERAGE GRADE EQUIVALENT
ITBS COMPOSITE SCORE
FOR GRADES ONE THROUGH SIX FOR SPRING 1980**

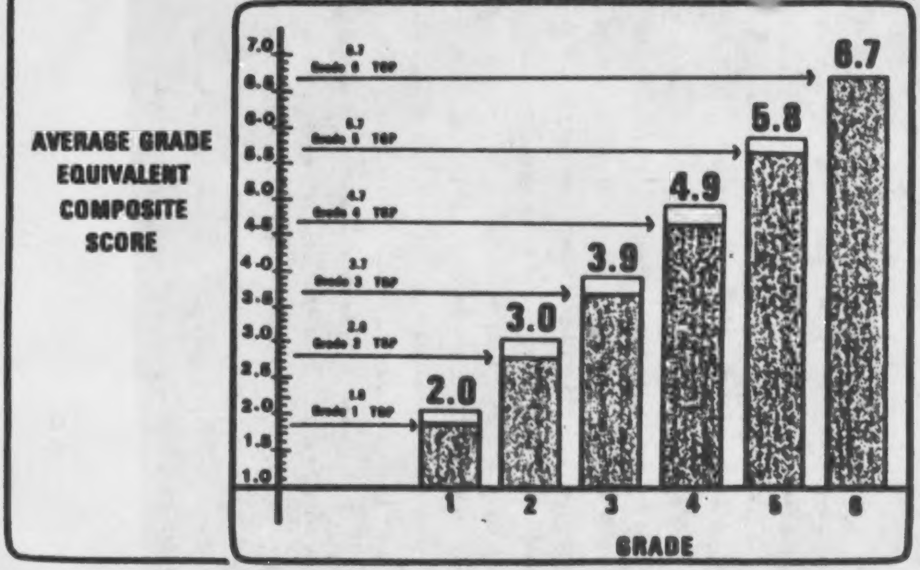


CHART IV

Vocational magnet programs in HISD offer a wide variety of career possibilities to students. Each school addresses particular student needs and interests. The Magnet School Program is based on the belief that an interested student is a motivated student---one who is motivated not only to learn his craft but his academics as well.

Several of Houston's alternative high schools actually predate the formal Magnet School Plan approved by the courts in 1975. The High School for Performing and Visual Arts opened in 1971 to provide a special curriculum for students interested in careers in art, music, dance, drama, and the media. Today, HSPVA has an enrollment of 521 students, 62% of which are white; 28.8% black; and 8.9% Hispanic. HSPVA also posts the highest achievement scores of any high school in the District.

The High School for Health Professions opened in 1972, in cooperation with the Texas Medical Center and the Baylor College of Medicine. Houston offers a unique opportunity for students skilled in medical fields because the Texas Medical Center makes medicine and related disciplines a major factor in the Houston economy and a major employer of Houstonians. HSHP is a good example of how HISD is training students for the real world---giving students strong skills in careers with a high demand for workers. The High School for Health Professions has an enrollment of 602 students, 57.3%-black; 22.8%-Hispanic; and 16.8%-white.

The Petrochemical Magnet Program at Milby Senior High School is another example of HISD recognizing a need in Houston's specific economy. The Petrochemical Industry is Houston's largest, but until the opening of the HISD Petrochemical Program in 1979 it was difficult for young people to learn the skills necessary for Petrochemical careers. Enrollment in the Petrochemical Magnet is 104 students, 41.2%-white; 30.1%-black; and 28.7%-Hispanic.

Milby Senior High School also houses another vocational magnet program dealing with the Building Trades. Construction is booming in Houston. Buildings seem to go up over night. Opportunities for well-trained young people abound. The HISD Building Trades Magnet Program is providing skilled graduates for those opportunities. Enrollment in the Building Trades Cluster stands at 226 students, 32%-white; 10%-black; and 58%-Hispanic.

The Aerodynamics Academy, like the Petrochemical Magnet and the Building Trades Cluster, is housed on a comprehensive high school campus but draws students from all parts of the city. One benefit of the Magnet School Program is that a special program need not exist only for those students who happen to live near it. The Magnet School programs greatly increase opportunities for all students to pursue special interests and broaden their horizons. The Aerodynamics program combines academic and vocational instruction in several aviation-related fields. Enrollment is 53 students, 35.3%-black; 33.3%-white; and 32.4%-Hispanic.

The Barbara Jordan High School for Careers offers vocational training in a wide variety of careers---from marketing to commercial art to business careers. Students from throughout HISD and surrounding districts pursue vocational and academic training in a modern, up-to-date facility. One program at Barbara Jordan is of particular interest. It is the Transportation Cluster, which covers every type of conveyance from boats to cars to buses. The HISD vocational program is constantly seeking ways to integrate its instruction into the community at large. The Metropolitan Transit Authority is currently building a maintenance facility adjacent to the Barbara Jordan campus. This facility will greatly enhance training and employment opportunities for Transportation Cluster graduates. Enrollment at Barbara Jordan is 1,105 students, 67%-black; 26.6%-Hispanic; and 5.3%-white.

The newest HISD Vocational Magnet School (opened January 19, 1981) addresses a particularly critical need---the need for trained, motivated people to pursue public service careers. The High School for Law Enforcement and Criminal Justice is a product of the cooperative efforts of HISD, the City of Houston, and the Houston Police Department. The curriculum is designed to meet the needs of students with a wide range of career interests from Police Science to Human Services. Enrollment at HSLE/CJ is 239 students, 17.2%-white; 50.2%-Hispanic; 32.6%-black.

Two more vocational magnet schools are now on the drawing boards. Both will seek to train young people in careers with a wide range of opportunities---particularly within the Houston economy. A Business and Office Occupation Magnet Program is planned. Job opportunities abound, particularly for those who are skilled in modern business technology. A Hospitality Magnet is also in the planning stages. This program would train young people in all areas of hotel and motel management. Houston is a major center of convention business---and the proposed program addresses the training needs of this vital segment of the Houston economy.

It, perhaps, should be noted at this point that not all HISD vocational programs are in Magnet Schools. Every comprehensive high school in the Houston school system (20 in all) offers a variety of vocational programs---from Marketing and Distributive Education to Office Education to Vocational Industrial (Trades and Industries) Education. All schools also offer cooperative education opportunities and provide special vocational programs for disadvantaged students.

Coordinated Vocational Academic Education is offered on all regular high school campuses. These pre-employment laboratory and cooperative programs meet special needs of students who are disadvantaged by socio-economic factors, limited English speaking ability, or academic factors.

CVAE programs serve those students who are disadvantaged but who are still in school. A major concern must be those students who have left school or who may do so without completing their high school education. In 1950, 34% of the jobs available did not require a high school education. By 1970 only 8% of all jobs did not require a diploma---and the trend continues. A young person who drops out of school has virtually no chance to succeed in today's society.

HISD participates in several programs aimed at involving "uninvolved" youth. Two of these programs are operated in close cooperation with CETA. The H. P. Carter Career Education Center offers ungraded vocational instruction to 181 students, 82.5%-black; 17.5%-Hispanic. The H. P. Carter Center receives a large portion of CETA funds.

The Contemporary Occupational Training Center operates with a CETA contract for the training of in-school youth. COTC has an enrollment of 305 students, 61.4%-black; 23.4%-white; 15.2%-Hispanic. COTC is a general school with a curriculum tailored to fit the needs of the drop-out or potential drop-out student. Once the student is exposed to this curriculum, it is hoped that he will gain enough interest in school to be motivated to reenter and complete regular high school training.

The Gulf Coast Trades Center, located 66 miles north of Houston at New Waverly, serves boys from 15 to 18 years of age, who are adjudicated delinquents or bordering on delinquency. Current enrollment stands at 94 students, 37.5%-black; 37.5%-white; 25%-Hispanic. A major concern at Gulf Coast is to impart values regarding work, education, self-sufficiency, and social responsibility through corrective life experiences, counseling and guidance in a residential setting. Bringing these uninvolved youth back into society is a prime goal.

Returning delinquent youth to useful citizenship is also the goal of the Harris County Youth Village, located 32 miles south of Houston at Seabrook. The Harris County Juvenile Probation Department operates the institutional programs and the overall facility. HISD directs and operates the educational component of the programs on the residential campus. This educational component is budgeted through and supported by HISD as a District vocational school. HISD and the Juvenile Probation Department work together at the Youth Village to try to help the students gain the skills necessary to successfully reenter the mainstream of society. Currently enrollment at the Youth Village is 172 students, 46.5%-black; 25.4%-Hispanic; 28.1%-white.

HISD sees serving the needs of its handicapped students as one of its major responsibilities. Programs in Vocational Education for the Handicapped are offered at several school sites throughout the District. In addition, HISD operates the Learning Skills Center which provides individualized study programs for handicapped students which enable each student to progress at his or her own rate of learning. The Learning Skills Center, which is centrally located, offers several special services for its handicapped students:

1. Transportation is provided for those students who qualify under HISD guidelines.
2. A full-time vocational counselor provides valuable counseling and vocational-related information to all students.
3. All students are screened for speech therapy and this service is provided weekly for those who qualify.
4. With the parents' permission, the students, at the age of 16, can become clients of the Texas Rehabilitation Commission.

The Learning Skills Center currently serves 87 students, 40%-black; 36.9%-Hispanic; 23.1%-white.

Overall, 596 handicapped students are being served in Vocational Education for the Handicapped programs throughout the city. In order that handicapped students receive education in the least restrictive setting possible (as required by PL 94-142), the Houston Independent School District has made great strides in mainstreaming handicapped students. This school year (1980-81), 157 handicapped students are enrolled in regular vocational programs in subjects ranging from photography to law enforcement. HISD wants every student to reach his full potential, not bound by stereotypes or undue restrictions. (See Charts V, VI, and VII on pages 16, 17, and 18.)

Another stereotype that often restricts students' vocational choice is sex stereotyping. HISD has made real progress in opening doors to non-traditional career decisions for both female and male students. Progress in the area of Homemaking and related careers has been particularly gratifying. Thirty percent of all students enrolled in Gainful Homemaking pre-employment programs are male. Other programs also show improvement, but much work remains to be done in this area. (See Chart VIII on page 19.)

In all, occupational programs serve 77,061 students in the Houston Independent School District in 871 total teaching programs. Of these, 20,037 are in job-entry vocational programs. The rest are enrolled in Business, Industrial Arts, CVAE Academics, and Career Investigation and Exploration programs for junior high and middle school students.

The 1980-81 budget for HISD occupational programs is $25.6 million, which includes $13.3 million of local funding, $10 million of state money, and $2.3 million federal dollars. (See Chart IX on page 20.) The HISD budget for these programs has steadily increased over the past six years, but inflation has taken its toll. The HISD budget increase of 85.5% for vocational education since 1975 represents an increase of only 18.8% when the inflation factor is figured in. (See Chart X on page 21.) HISD has a strong vocational program which is meeting Houston's needs, but Houston's high technology economy requires that graduates of vocational programs come to the marketplace with comparable skills. The facilities and equipment to train those students must keep pace with business and industrial standards.

CHART V

HOUSTON INDEPENDENT SCHOOL DISTRICT

VOCATIONAL EDUCATION ENROLLMENT TOTAL 1980-81			77,061
JOB ENTRY		20,037	
DISADVANTAGED	3,317		
HANDICAPPED	596		
MAINSTREAMED	157		
NON SPECIAL POPULATION	16,124		
INVESTIGATION, EXPLORATION, AND NON JOB ENTRY		57,024	

INCLUDES MAGNET, ALTERNATIVE, AND COMPREHENSIVE SCHOOLS

TOTAL TEACHING PROGRAMS		871
VOCATIONAL	621	
NON. VOCATIONAL	250	

HOUSTON INDEPENDENT SCHOOL DISTRICT

VOCATIONAL MAGNET SCHOOLS 65% BLACK/BROWN, 35% WHITE	ENROLLMENT
• HIGH SCHOOL FOR HEALTH PROFFESSIONS	602
• HIGH SCHOOL FOR LAW ENFORCEMENT AND CRIMINAL JUSTICE	239
• HIGH SCHOOL FOR PERFORMING AN VISUAL ARTS	521
• PETRO-CHEMICAL INSTITUTE	104
• AIRCRAFT AND AERODYNAMICS ACADEMY	53
• BARBARA JORDAN HIGH SCHOOL FOR CAREERS (TRANSPORTATION CLUSTER)	169
• MILBY HIGH SCHOOL (CONSTRUCTION CLUSTER)	254

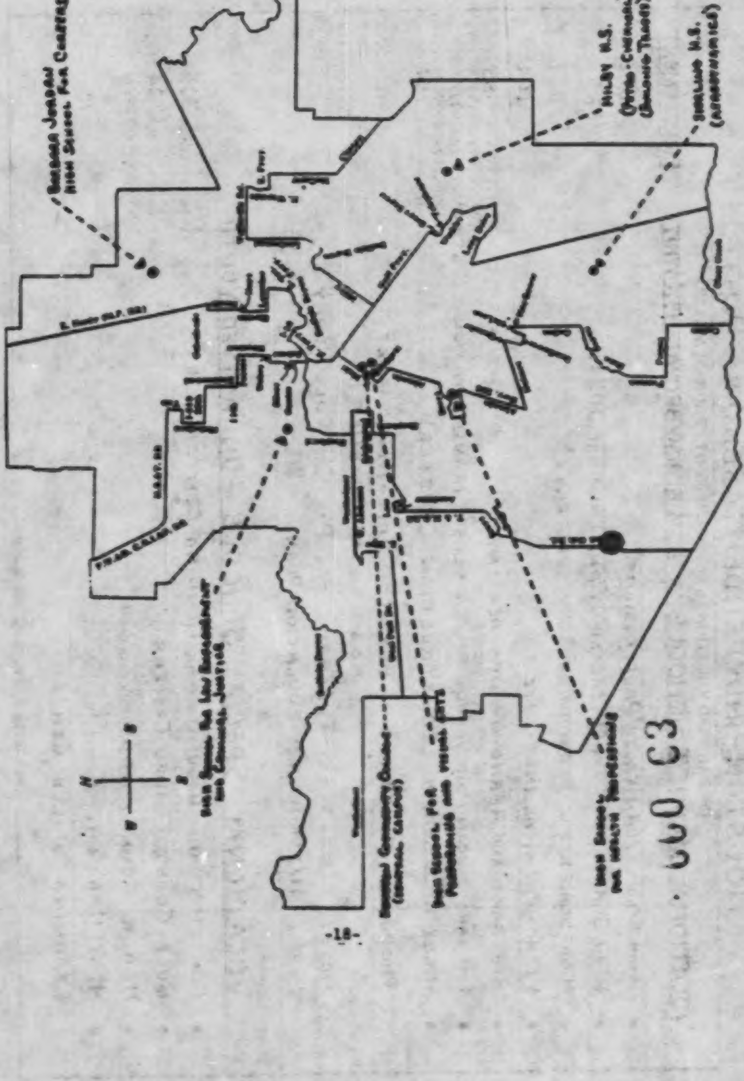
• PROPOSED PROGRAMS: BUSINESS EDUCATION MAGNET
HOSPITALITY MAGNET

NOTE: ALL OF THESE PROGRAMS ARE PART OF VOLUNTARY INTERDISTRICT EDUCATION PLAN

VOCATIONAL SPECIAL SCHOOLS - UNINVOLVED YOUTH	
• CONTEMPORARY OCCUPATIONAL TRAINING CENTER, CETA	305
• GULF COAST TRADES CENTER	94
• HARRIS COUNTY YOUTH VILLAGE	1 172
• H. R CARTER, CETA	181
• LEARNING SKILLS CENTER	87

CHART VI

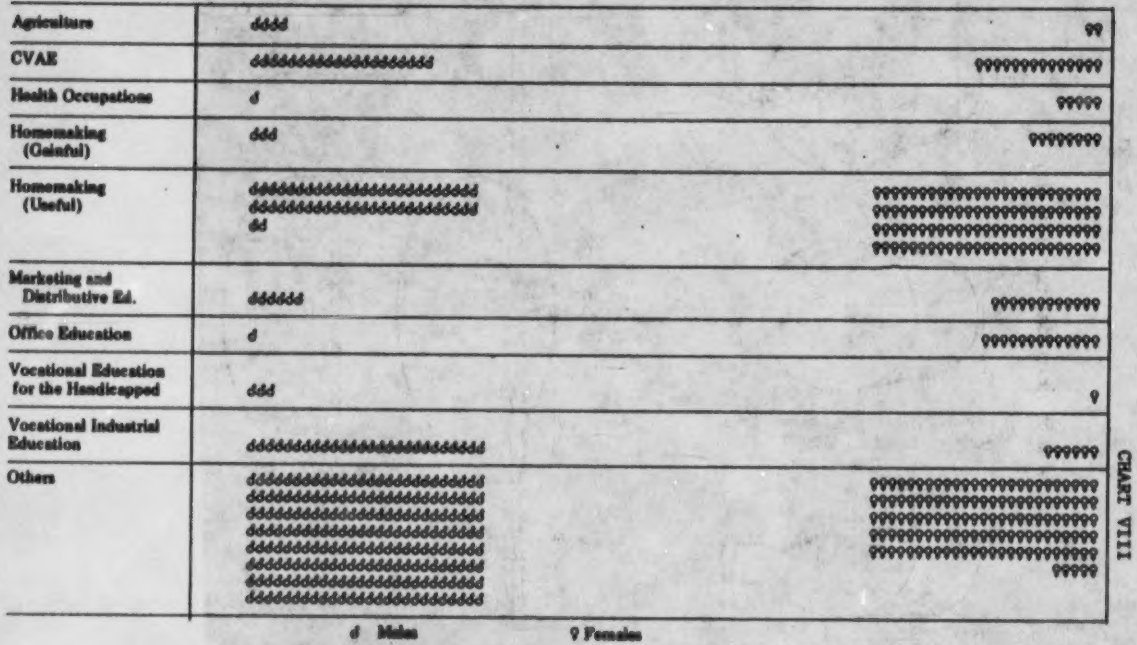
CHART VII


N
S
E
W
Barbara Jordan High School for Careers
High School for Law Enforcement and Criminal Justice
Houston Community College (Central Campus)
High School for Performing and Visual Arts
High School for Health Professions
Milby H.S. (Petro-Chemical) (Building Trades)
Sterling H.S. (Aerodynamics)

000 C3

CHART VIII

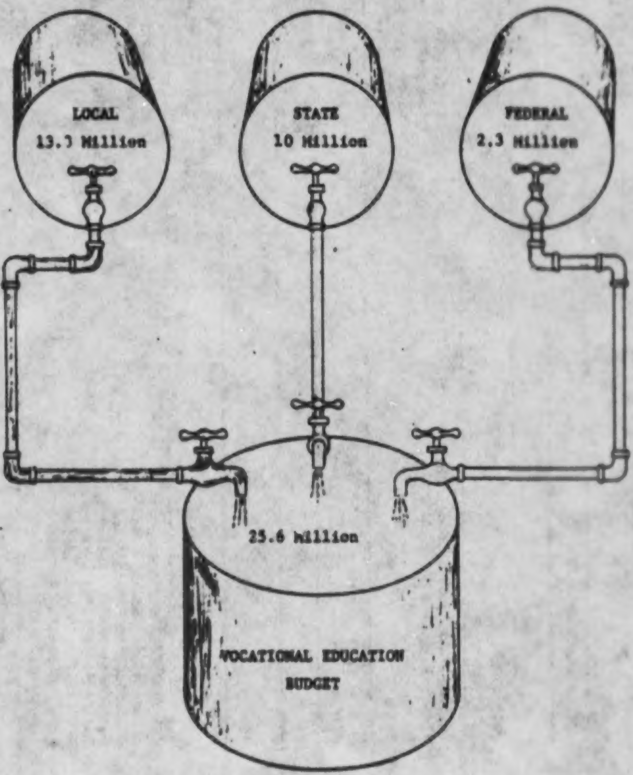
TOTAL HISD VOCATIONAL ENROLLMENT BY PROGRAM AND SEX



Each Symbol Represents 100 Students

CHART IX

FLOW OF VOCATIONAL FUNDING TO HISD


LOCAL
13.3 Million
STATE
10 Million
FEDERAL
2.3 Million
25.6 Million
VOCATIONAL EDUCATION
BUDGET

Comparison of the Growth of the H.I.S.D. Occupational & Continuing Education Division Budget: Actual Dollar Growth vs. Purchasing Power Growth.

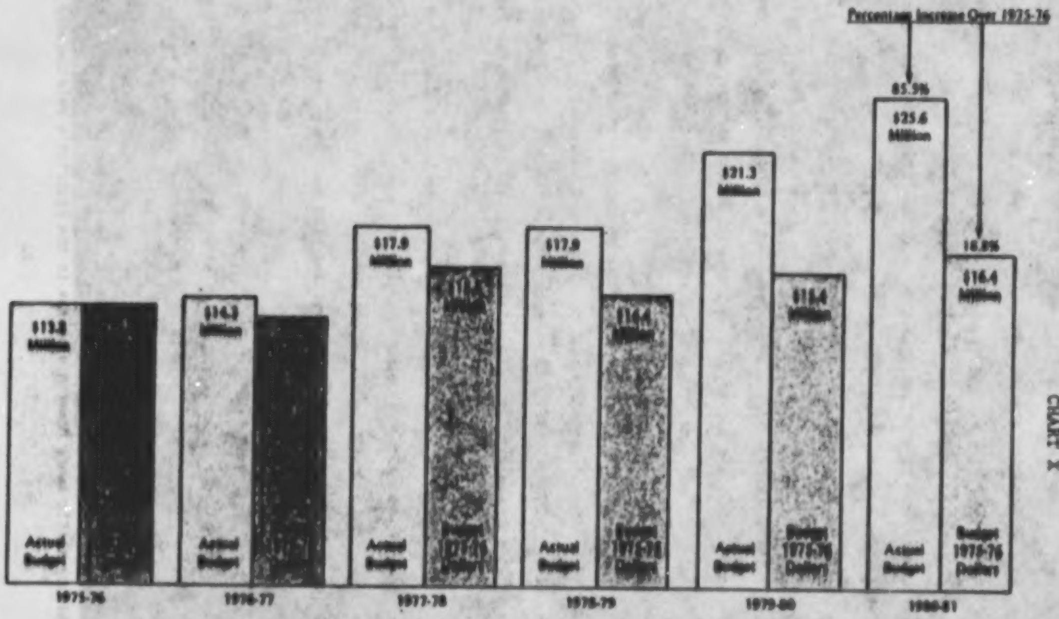


CHART X

The cost of such training is high, but the cost of not providing it is higher.

The best indication of the success of any vocational education program is the success of its graduates. HISD Placement and Follow-Up figures show that HISD is training people---and training people well---for jobs which are available. For example, 86% of all 1980 graduates of Office Education vocational programs are working full time in the field for which they were trained.

The Placement and Follow-Up figures for disadvantaged and handicapped students present a most interesting picture. 1980 CVAE (disadvantaged) graduates show a 76% employment rate---a rate comparable to Marketing and Distributive Education graduates and higher than graduates of Health and Vocational Industrial programs. The employment rates for handicapped students who have completed a VEH program is even higher---86%. (See Chart XI on page 23.)

Vocational Education is working in the Houston Independent School District ---for all segments of the school population---disadvantaged, handicapped, and the general school population. One reason vocational education is successful in Houston is because of the close working relationships HISD has with others in the community with similar goals.

HISD, for example, has an active Business and Industry Advisory Board for its Occupational and Continuing Education Division. The board represents a strong cross-section of the community---employers, unions, parents, the media. The Board is in the process currently of evaluating HISD vocational programs to assess their quality and most importantly how well they are meeting and will meet future needs of the Houston business and industrial community. (See Chart XII on page 24.)

In addition to this District-wide Advisory Board, each program area (and individual course offerings as well) has Advisory Committees committed to improving the quality of that particular program.

Another example of how HISD is cooperating in the effort to insure employability skills among Houston citizens is the District's relationship with the

CHART XI

HIGH VOCATIONAL EDUCATION -- COMPLETION, PLACEMENT, AND FOLLOW-UP
School Year 1979-80

PROGRAM	Agriculture	CVAE	H/ED	Health	Homemaking Gainful	Homemaking Useful	Office Ed.	Voc. Ind.	VEH	Total
TOTAL ENROLLMENT	606 (3%)	3116 (15%)	1650 (8%)	766 (4%)	1086 (5%)	7745 (38%)	1380 (7%)	3804 (19%)	324 (1%)	20,706
Number of students completing program	104 (17%)	304 (10%)	500 (30%)	164 (21%)	349 (32%)		536 (41%)	1017 (27%)	36 (11%)	3,037 (24%)
Number of completing students seeking employment	74 (71%)	270 (89%)	408 (82%)	81 (49%)	273 (78%)		472 (88%)	816 (80%)	30 (83%)	2,424 (80%)
Number of job seekers who obtained fulltime employment in field trained or related field	31 (42%)	205 (76%)	309 (76%)	53 (65%)	154 (56%)		407 (86%)	543 (67%)	26 (86%)	1,728 (71%)

*** Total enrollment in OCE Programs for school year 1979-80: 76,221
(Includes Industrial Arts, Career Orientation, Regular Business Education, CVAE-Academics, Homemaking-non-vocational)

CHART XII

OCCUPATIONAL AND CONTINUING EDUCATION ADVISORY BOARD
Houston Independent School District
1980-81

JOHN BARTLETT, Director, City of Houston, Office of the Mayor, Comprehensive Employment and Training Act (C.E.T.A.), 401 Louisiana, Houston 77002, 223-1071

CHARLES R. "BOB" DUNN, Attorney at Law, Senior Partner, Wyckoff, Russell, Dunn and Frazier, 800 First City National Bank Building, Houston 77002 658-6585

C. WILLIAM GRIBBLE, President, Gribble Stamp & Stencil Company, P. O. Box 4068, Houston 77021, 228-5358

HENRY HAAS, President, HMC Petrochemicals, Inc., P. O. Box 1188, Houston 77001, 654-6386

CLARK HEAD, Principal, Eastwood Baptist Church & School, 1315 Dumble, Houston 77023, 923-2711

PARKER LEDBETTER, Manager, Education/Military Affairs, Houston Chamber of Commerce, 1100 Milam Bldg., 25th Floor, Houston 77002, 651-1313

MRS. BILLIE MARABLE, Staff Supervisor-Educational Relations, Southwestern Bell Telephone Company, 3100 Main, Room 1214, Houston 77002, 521-8530

PAUL H. MEETING, Group Manager, Human Resources Development, Hughes Tool Division, P. O. Box 2539, Houston 77001, 924-2248

JOE MIRSKY, President, Beckman Office Supply Company, 1953 West Gray, Houston 77019, 526-8981

ALMA J. NEWSOM, Director of Community Affairs, KHOU-TV, 1945 Allen Parkway, Houston 77019, 526-1111

ANN R. NORRIS, Assistant Professor and R. N. Coordinator, The University of Texas Health Science Center at Houston School of Nursing, 1100 Holcombe, Houston 77030, 792-7800 ext. 7847

DR. ROBERT L. PRATER, Dean, School of Technology, Texas Southern University, 3201 Wheeler Avenue, Houston 77004, 527-7006

SHIRLEY K. PRICE, Equal Opportunity Specialist, Handicapped Coordinator, NASA Johnson Space Center, Equal Opportunity Programs Office/AJ, Houston 77058, 483-4831

BRITTON RYAN, Executive Vice President, Houston Community College System, 22 Waugh Drive, Houston 77007, 869-8965

SHIRLEY STEPHENS, Assistant Supervisor, Personnel Services, National Supply Company/Armco, 1455 West Loop South, Houston 77027, 960-5295

D. E. "ED" TALLEY, Quality and Safety Section Manager, Dow Chemical U.S.A., 400 West Belt South, P. O. Box 3387, Houston 77001, 978-2326

JOEL TERRY, District Director, Texas Employment Commission, P. O. Box 1390, Houston 77001, 527-0711

JACK WOODYARD, City of Houston Fire Department, Certification Office, 410 Bagby, Houston 77002, 222-3266

GINIA WRAY WRIGHT, Parent, 1115 Martin, Houston 77018, 686-3984

MANUEL J. ZAMORA, Regional Director, Human Resources Development Institute, AFL/CIO, 2506 Sutherland, Houston 77023, 923-5103

Houston Community College System.

The Houston Community College System will serve over 37,000 citizens this year, and approximately 75% will be receiving vocational training or the remedial education necessary to obtain or retain employment. Twenty HCC sites are high schools or middle schools. Ten of these are designated as Community Education Centers.

One of the new and exciting thrusts of the College is to conduct classes at actual job sites using plant equipment and, in many cases, local plant supervisors as instructors. While most of this is vocational skills training, the College will also take traditional college level courses to plants and business sites when requested. Due to the growing concentration of Mexican-Americans, English as a second language, and, in some cases, Spanish as a second language, is becoming a vocational necessity.

Many HISD vocational graduates take advantage of the HCC program and some vocational teachers are employed as part-time instructors with the College. All vocational students at the College receive credit for their high school vocational work either through advanced placement or early completion.

This type of articulation between the school district and the community college is a good example of how a community can best be served if you focus your entire attention on what is best for the student.

It is this type of cooperation that HISD is forging with other local groups---groups such as CETA, the Texas Rehabilitation Commission, Private Industry Councils, four-year colleges, and union apprenticeship programs. Such joint efforts will insure that the needs of Houston industry will continue to be met. (See Chart XIII on page 26.)

Those needs cannot be met unless we constantly seek to improve and update our programs.

HOUSTON'S EDUCATION & BUSINESS COMMUNITY

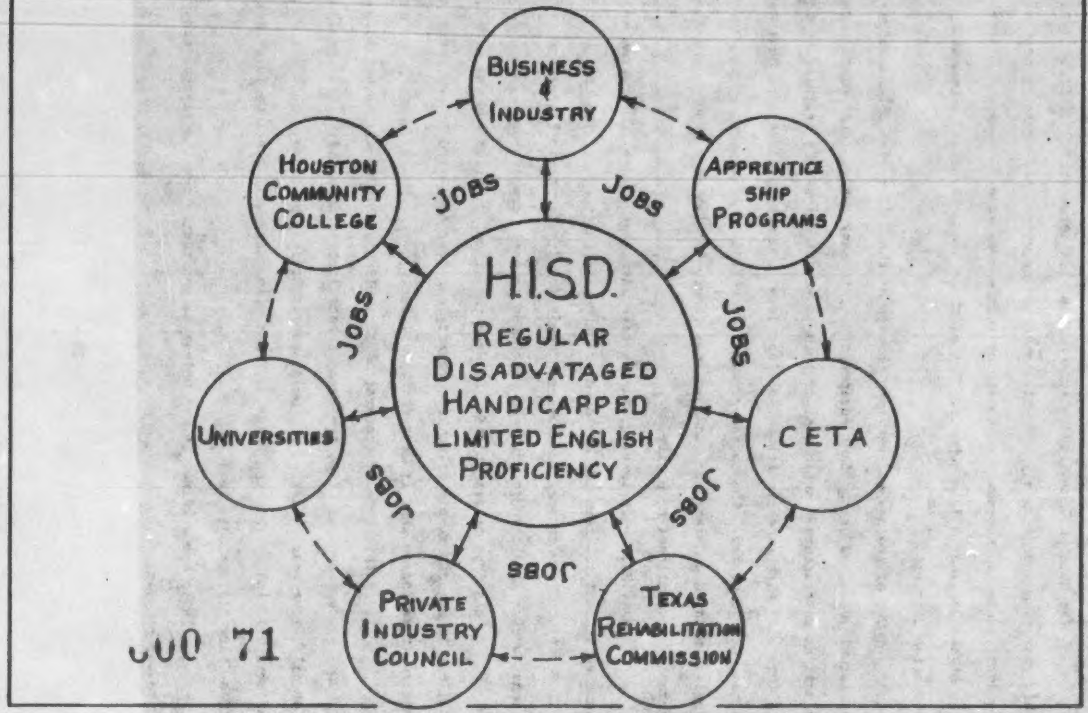

BUSINESS & INDUSTRY
APPRENTICESHIP PROGRAMS
CETA
TEXAS REHABILITATION COMMISSION
PRIVATE INDUSTRY COUNCIL
UNIVERSITIES
HOUSTON COMMUNITY COLLEGE
H.I.S.D.
REGULAR
DISADVATAGED
HANDICAPPED
LIMITED ENGLISH PROFICIENCY
JOBS
JOBS
JOBS
JOBS
JOBS
JOBS
JOBS

CHART XIII

Despite Houston's booming economy, there continues to be those who are not a part, who---for reasons of handicap, disadvantage, limited English proficiency, or stereotyping---are not fulfilling their full promise. These are the needs we---as educators---must address.

It is most important for Congress to understand several factors dealing with vocational education in a large city school district and in particular with the Houston Independent School District:

1. Additional federal funds would provide an opportunity for improving the effectiveness of current programs for the disadvantaged and handicapped. For example, vocational sheltered workshops need to be established for those special education students who cannot profit or benefit from other vocational programs in the District because of their handicapping condition. Our district is now providing some vocational training in special laboratories to meet the needs of these particular students. However, we have not scratched the surface of this need.

We must expand our services for additional vocational assessment of handicapped students. These services will cost approximately $680,000.

2. The Houston Independent School District through its vocational programs must address the unique needs of its disadvantaged students in the inner city. Funds need to be made available for the discretionary use of the District as we see the needs locally. Thirty-one percent of our total vocational student population falls into the disadvantaged population category. Our division is able to spend only $1.9 million which is 8% of the total budget in support of quality training programs for this group of students.

3. There is a great need to serve students between the ages of 11 and 13, who demonstrate little or no interest in formal education. Federal funds can provide career development programs in the area of occupational orientation and exploration for these students. We must involve potential drop-outs at an earlier age, by showing them real educational alternatives and career opportunities.

4. HISD accepts the responsibility of training students in non-traditional occupational areas thus eliminating sex bias and sex stereotyping. But there is an educational job in this regard that has been neglected. We must educate parents. Our community still thinks "traditional." We need federal funds to mount a quality public relations program for vocational education---to educate parents in the advantages and rewards of vocational education in general and in the particular rewards of non-traditional career choices.

5. We must constantly up-date the equipment and tools used to train students in all vocational programs. Graduates must leave school with the skills necessary to step into industry. The way to guarantee this is to assure that students learn today's skills not yesterday's. This means "state of the art" equipment---and it means teachers whose skills remain current. Federal funds are needed to maintain and up-date equipment and to provide for interchange between faculty members and industry in order for vocational programs to meet the challenge of the Eighties and beyond.

Vocational Education must meet that challenge. It is the best answer to our unemployment problems. Vocational Education can and must provide people of all ages with a strong education, the skills of a trade, and the respect for work that allows all to fully participate in our society. The waste of human potential is the greatest waste of all.

It is our challenge to see that this waste is eliminated.

PREPARED STATEMENT BY JOHN C. COX, DEPUTY SUPERINTENDENT, OCCUPATIONAL AND CONTINUING EDUCATION DIVISION, HOUSTON INDEPENDENT SCHOOL DISTRICT

The United States today faces a two-pronged problem which if allowed to fester will affect our nation for generations. Unemployment and underemployment coupled with skilled job opportunities which go begging is a concern which must be addressed by the American public.

One answer to this twin concern is education---education soundly grounded in the real world. We must provide innovative, imaginative, quality programs which reach all young people---the disadvantaged, the handicapped, and those who have been "turned off" by the normal educational channels.

Vocational occupational training may be the best link we have to these groups.

Vocational education must reach all students if our economy is to thrive into the Twenty-First Century. The vast majority (over 80% by government projections) of all jobs today require technical skills. Tomorrow's job market will be even more technical if current trends continue.

Vocational programs must address real opportunities in the working world. We must couple education with industry to assure candidates will be available to fill business and industry requirements.

Training for employment in the State of Texas is a concern of many different institutions and organizations, each of which has its own funding sources and controls.

The bulk of job training in the State of Texas is, however, the responsibility of public educational institutions.

The public secondary schools of Texas serve 600,000 students in vocational education programs. (An additional 500,000 are served by post-secondary and adult programs.) Administered by the Texas Education Agency and local school districts under policies established by the State Board of Education and local District Boards, the public secondary vocational programs are funded by federal, state, and local dollars. The 1980-81 federal budget for vocational education programs in Texas is $36,374,745. Of this amount, $8,551,838 is being spent by the eight largest school districts. The eight city school districts serve approximately 203,387 vocational students. In other words, 34% of all vocational students in Texas are being served by 23% of the budget.

The Houston Independent School District---the largest in the state---operates in an evnironment that is, in many ways, unique. Houston, the nation's fifth largest city, has, by the federal governments own standards, a full employment economy (3.7% unemployment).

But Houston is not without problems---many of the same problems that plague other large cities.

The Houston Independent School District is an innercity district. Of the 170 elementary schools in the district, 60 (serving over 37,000 students) qualify for Title I funding. HISD total enrollment of 194,043 for 1980-81 is 44.9% black, 27.8% Hispanic, and 27.3% white. The concentration of minority students in HISD presents the district with more handicapped, disadvantaged and limited English proficiency students to prepare for a place in a society and an economy which increasingly requires a strong education and technical skills.

The Houston Independent School District has made a commitment to these students---and all HISD students---to provide a realistic education for today's world. As part of that commitment, HISD has embarked on a major facility improvement program funded through public bond money. The construction of occupational/vocational facilities constitute a major thrust of the building program, which includes construction of new buildings for the High School for Health Professions, the Barbara Jordan High School for Careers, the High School for Performing and

Visual Arts, and a vocational wing at Charles H. Milby Senior High School and renovation of the building which houses the High School for Law Enforcement and Criminal Justice.

Modern facilities are only a part of HISD's commitment to its students. Achievement and quality education for all is the Houston School system's primary goal. It is a goal that is being attained because of several innovative programs.

For instance, HISD has instituted a rigorous attendance policy. A student who has seven unexcused absences in the course of a semester is denied credit. The policy has worked. Average daily attendance in HISD for the current school year is 95%.

HISD knows that getting and keeping good teachers is often the difference in a student achieving or failing. To decrease teacher turn-over, the Houston district has developed a teacher incentive program, called "The Second Mile Plan." Under this plan, teachers in Title I schools or who are in "high priority location" schools (inner city schools) receive stipends as do those who teach in areas of critical need, such as, special education. Teachers may also earn stipends for perfect attendance, advanced course work, and recruiting other teachers to HISD. In addition, all faculty personnel in schools which show significant growth in achievement scores are eligible for extra pay. HISD in recognizing excellence and dedication in its professional teaching staff.

Teachers and school districts cannot alone insure that all students achieve up to their full potential. Parents must be involved. The Houston school district's Fail Safe program has drawn national attention for its pioneering efforts to include parents in all aspects of their children's education.

These programs have worked. Test scores show HISD students achieving at levels higher than those in other districts whith a comparable socio-economic population. Analysis of standardized achievement test scores for the 1979-80 school year shows that the average academic achievement of students at every elementary grade tested in the Houston Independent School District meets or exceeds the national norm.

Perhaps the most innovative of all HISD programs designed to help students achieve and succeed in the society after graduation is the Magnet School program. The Magnet School Plan was developed and implemented in 1975 to meet two specific objectives:

1. To provide programs whose quality education would attract students to them voluntarily, and
2. To increase the percentage of the students attending integrated schools while decreasing the number of one-race schools in the district.

Each magnet school program includes both a strong academic program and a special curriculum designed around the needs, interests, and abilities of the students. Many of the magnet programs at the secondary level are vocationally-based.

The Vocational Magnet Schools in HISD also participate in the Voluntary Interdistrict Educational Plan, a pilot program begun this school year with the cooperation of HISD, surrounding suburban school districts, and the Texas Education Agency. The plan encourages suburban students to attend HISD vocational magnet programs, tuition-free, with transportation provided, thus increasing integration in HISD and the educational opportunities of the participating students.

Vocational Magnet programs in HISD offer a wide variety of career possibilities to students. Each school addresses particular student needs and interests. The Magnet School Program is based on the belief that an interested student is a motivated student---one who is motivated not only to learn his craft, but his academics as well.

Several of Houston's alternative high schools actually predate the formal Magnet School Plan approved by the courts in 1975. The High School for Performing and Visual Arts opened in 1971 to provide a special curriculum for students interested in careers in art, music, dance, drama, and the media.

The High School for Health Professions opened in 1972 in cooperation with the Texas Medical Center and the Baylor College of Medicine. Houston offers a unique opportunity for students skilled in medical fields because the Texas Medical Center makes medicine and related disciplines a major factor in the Houston economy and a major employer of Houstonians.

The Petrochemical Magnet Program at Milby Senior High School is another example of HISD recognizing a need in Houston's specific economy. The Petrochemical Industry is Houston's largest, but until the opening of the HISD Petrochemical Program in 1979 it was difficult for young people to learn the skills necessary for petrochemical careers.

Milby Senior High also houses another vocational magnet program dealing with the Building Trades. Construction is booming in Houston. Buildings seem to go up overnight. Opportunities for well trained young people abound. The HISD Building Trades Magnet Program is providing skilled graduates for those opportunities.

The Aerodynamics Academy, like the Petrochemical Magnet and the Building Trades Cluster, is housed on a comprehensive high school campus but draws students from all parts of the city. One benefit of the Magnet School program is that a special program need not exist only for those students who happen to live near it. The Magnet School programs greatly increase opportunities for all students to pursue special interests and broaden their horizons.

The Barbara Jordan High School for Careers offers vocational training in a wide variety of careers---from marketing to commercial art to business careers. Students from throughout HISD and surrounding districts pursue vocational and academic training in a modern, up-to-date facility. One program at Barbara Jordan is of particular interest. It is the Transportation Cluster which covers every type of conveyance from boats to cars to buses. The HISD vocational program is constantly seeking ways to integrate its instruction into the community at large. The Metropolitan Transit Authority is currently building a maintenance facility adjacent to the Barbara Jordan Campus. This facility will greatly enhance training and employment opportunities for Transportation Cluster graduates.

The newest HISD Vocational Magnet School, opened January 19, 1981, addresses a particularly critical need--the need for trained, motivated people to pursue public service careers. The High School for Law Enforcement and Criminal Justice is a product of the cooperative efforts of HISD, the City of Houston, and the Houston Police Department. The curriculum is designed to meet the needs of students with a wide range of career interests from Police Science to Human Services.

Two more vocational magnet schools are now on the drawing boards. Both will seek to train young people in careers with a wide range of opportunities--particularly within the Houston economy. A Business and Office Occupation Magnet Program and a Hospitality Magnet to train young people in all areas of hotel and motel management are now in the planning stages.

Perhaps it should be noted at this point that not all HISD vocational programs are in Magnet Schools. Every comprehensive high school in the Houston school system, 20 in all, offers a variety of vocational programs - from Marketing and Distributive Education to Office Education to Vocational Industrial (Trades and Industries) Education. All schools also offer cooperative education opportunities and provide special vocational programs for disadvantaged students.

Coordinated Vocational Academic Education is offered on all regular high school campuses. These pre-employment laboratory and cooperative programs meet special needs of students who are disadvantaged by socio-economic factors, limited English speaking ability, or academic factors.

CVAE programs serve those students who are disadvantaged but who are still in school. A major concern must be those students who have left school or who may do so without completing their high school education. HISD participates in several programs aimed at involving "uninvolved" youth.

Two of these programs, the H. P. Carter Center and the Contemporary Occupational Training Center, are operated in close cooperation with CETA.

The Gulf Coast Trades Center, located north of Houston at New Waverly, serves boys from 15 to 18 years of age who are adjudicated delinquents or bordering on delinquency. A major concern at Gulf Coast is to impart values regarding work, education, self-sufficiency, and social responsibility through corrective life experiences, counseling and guidance in a residential setting.

Returning delinquent youth to useful citizenship is also the goal of the Harris County Youth Village located 55 miles south of Houston at Seabrook. The Harris County Juvenile Probation Department operates the institutional programs and the overall facility. HISD directs and operates the educational component of the programs on the residential campus. This educational component is budgeted through and supported by HISD as a district vocational school.

HISD sees serving the needs of its handicapped students as one of its major responsibilities. Programs in Vocational Education for the Handicapped are offered at several school sites throughout the District. In addition, HISD operates the Learning Skills Center which provides individualized study programs for handicapped students which enable each student to progress at his or her own rate of learning.

Overall, five hundred ninety-six handicapped students are being served in Vocational Education for the Handicapped programs throughout the city. In order that handicapped students receive education in the least restrictive setting possible (as required by PL 94-142), the Houston Independent School District has made great strides in mainstreaming handicapped students. This school year (1980-81), 157 handicapped students are enrolled in regular vocational programs in subjects ranging from photography to law enforcement. HISD wants every student to reach his full potential, not bound by stereotypes or undue restrictions.

Another stereotype that often restricts students vocational choices is sex stereotyping. HISD has made real progress in opening doors to nontraditional career decisions for both female and male students. Progress in the area of Homemaking and related careers has been particularly gratifying. Thirty percent of all students enrolled in Gainful Homemaking pre-employment programs are male. Other programs also show improvement, but much work remains to be done in this area.

In all, Occupational programs serve 77,061 students in the Houston Independent School District in 871 total teaching programs. Of these, 20,037 are in job entry vocational programs. The rest are enrolled in Business, Industrial Arts, CVAE Academics, and Career Investigation and Exploration programs for junior high and middle school students.

The 1980-81 budget for HISD Occupational programs is $25.6 million, which includes $13.3 million of local funding, $10 million of state money, and $2.3 million federal dollars. The HISD budget for these programs has steadily increased over the past six years, but inflation has taken its toll. The HISD budget increase of 85.5% for vocational education since 1975 represents an increase of only 18.8% when the inflation factor is figured in.

The best indication of the success of any vocational education program is the success of its graduates. HISD Placement and Follow-Up figures show that HISD is training people---and training people well---for jobs which are available. For example, 86% of all 1980 graduates of Office Education vocational programs are working full time in the field for which they were trained.

The Placement and Follow-Up figures for disadvantaged and handicapped students present a most interesting picture. 1980 CVAE (disadvantaged) graduates show a 76% employment rate. The employment rates for handicapped students who have completed a VEH program is even higher---86%.

Vocational Education is working in the Houston Independent School District---for all segments of the school population---disadvantaged, handicapped, and the general school population. One reason vocational education is successful in Houston is because of the close working relationships HISD has with others in the community with similar goals.

HISD, for example, has an active Business and Industry Advisory Board for its Occupational and Continuing Education Division. The Board represents a strong cross-section of the community---employers, unions, parents, the media. The Board is in the process currently of evaluating HISD vocational programs to assess their quality and, most importantly, how well they are meeting and will meet future needs of the Houston business and industrial community.

In addition to this District-wide Advisory Board, each program area (and individual course offerings as well) have Advisory Committees committed to improving the quality of that particular program. Another example of how HISD is cooperating in the effort to insure employability skills among Houston citizens is the District's relationship with the Houston Community College System.

The Houston Community College System will serve over 37,000 citizens this year, and approximately 75% will be receiving vocational training or the remedial education necessary to obtain or retain employment.

Many HISD vocational graduates take advantage of the HCC program and some vocational teachers are employed as part-time instructors with the College. All vocational students at the College receive credit for their high school vocational work either through advanced placement or early completion.

It is this type of cooperation that HISD is forging with other local groups---groups such as CETA, the Texas Rehabilitation Commission, Private Industry Councils, four year colleges, and union apprenticeship programs. Such joint efforts will insure that the needs of Houston industry will continue to be met. Those needs cannot be met unless we constantly seek to improve and update our programs.

Despite Houston's booming economy, there continues to be those who are not a part---who, for reasons of handicap, disadvantage, limited English proficiency, or stereotyping---are not fulfilling their full promise. These are the needs we, as educators, must address.

It is most important for Congress to understand several factors dealing with vocational education in a large city school district and in particular with the Houston Independent School District:

1. Additional federal funds would provide an opportunity for improving the effectiveness of current programs for the disadvantaged and handicapped. For example, vocational sheltered workshops need to be established for those special education students who cannot profit or benefit for other vocational programs in the District because of their handicapping conditions. Our district is now providing some vocational training in special laboratories to meet the needs of these particular students. However, we have not scratched the surface of this need. We must expand our services for additional vocational assessment of handicapped students. These services will cost approximately $680,000.
2. The Houston Independent School District through its vocational programs must address the unique needs of its disadvantaged students in the inner city. Funds need to be made available for the discretionary use of the district as we see the needs locally. Thirty-one

percent of the total vocational student population falls into the disadvantaged population category. Our Division is able to spend only $1.9 million, which is 8% of the total budget, in support of quality training programs for this group of students.

3. There is a great need to serve students between the ages of 11 and 13 who demonstrate little or no interest in formal education. Federal funds can provide career development programs in the area of occupational orientation and exploration for these students. We must involve potential drop-outs at any earlier age, by showing them real educational alternatives and career opportunities.

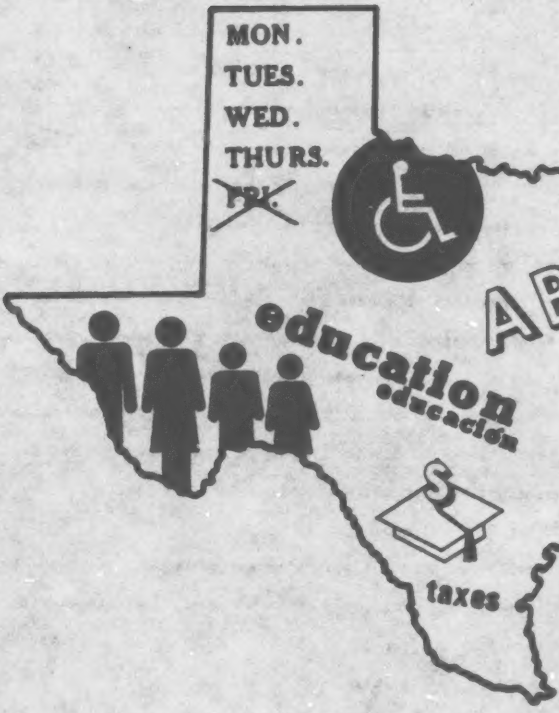
4. HISD accepts the responsibility of training students in nontraditional occupational areas thus eliminating sex bias and sex stereotyping. But there is an educational job in this regard that has been neglected. We must educate parents. Our community still thinks "traditional". We need federal funds to mount a quality public relations program for vocational education---to educate parents in the advantages and rewards of vocational education in general and in the particular rewards of nontraditional career choices.

5. We must constantly up-date the equipment and tools used to train students in all vocational programs. Graduates must leave school with the skills necessary to step into industry. The way to guarantee this is to assure that students learn today's skills, not yesterday's. This means "state of the art" equipment---and it means teachers whose skills remain current. Federal funds are needed to maintain and up-date equipment and to provide for interchange between faculty members and industry in order for vocational programs to meet the challenge of the Eighties and beyond.

Vocational Education must meet that challenge. It is the best answer to our unemployment problems. Vocational Education can and must provide people of all ages with a strong education, the skills of a trade, and the respect for work that allows all to fully participate in our society. The waste of human potential is the greatest waste of all.

It is our challenge to see that this waste is eliminated.

Factors Affecting Education in HISD and Texas in the Eighties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February 1981

Factors Affecting Education
in HISD and Texas in the Eighties

Prepared by

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February 1981

Factors Affecting Education in NISD and Texas in the Eighties

Education affects and is affected by numerous factors in our multifaceted and interrelated society. The 1980's bring to bear an interesting, and no less complex, array of factors that will impinge upon the decisions to be made by educators. The changing demographics of both student and teacher populations, economic considerations, and legislation are some of the areas which are explored in this paper. Myths which pervade much of our previous thinking must be dispelled and replaced by an accurate and current view of the entire arena. The purpose of this document is to present the latest research related to factors facing educators during this decade.

CHANGING SOCIAL DEMOGRAPHICS

Recent trends in American life are changing the demographics of families and the school age population. Most notable among these changes are the rise in single-parent families, increases in working mothers, and the reduction in family size. All of these trends will substantially impact the decisions educators face in the next ten years.

American Family Changes

In a recent study, researchers at Harvard and MIT (The Nation's Families: 1960-1990) predicted that the traditional family as we have known it will become a minority by 1990. Half of the adult population will be living alone and of the married half, only half again will elect to have children.

Although currently families with children average two children, not all families have two parents. The advent of the single-parent family is a second phenomenon in American family trends. In 1978, the proportion of all children under age 14 living with both parents was 78%, a decline of 10% since 1960. (The Status of Children, Youth and Families, 1979). In NISD 30% of the children live in one-parent households.

Another change in the American family is the working mother phenomenon, including both two-career households and female-headed households. A 1978 study (The Condition of Education 1979 Edition: Statistical Report, National Center for Educational Statistics) indicated that over 53% of children 6 to 17 years old are living with mothers who are in the labor force. All of the described trends have occurred in a relatively short period of time and thus, their full effects on education are difficult to assess. However, we can begin to ask what are their implications for educational institutions.

First, it seems clear that schools have and will continue to see declines or at least no great upswings in student enrollments. Second, the single-parent family will require schools to be more sensitive to the needs of children from single-parent homes, many of whom have working mothers. Extended school hours, before and after the traditional school day, may become more common to accommodate these families. Perhaps even a lengthening of the school year may be a plus for both families and the educational system.

Shifting Student Enrollment Patterns

Along with the changing demographic patterns in the American family, many school systems have experienced shifts in student enrollment patterns. The seventies witnessed decreases in the school age population and increased growth in minority populations. These national trends are paralleled in HISD's enrollment patterns.

The peak enrollment in HISD was reached in 1968-69 with 245,396 pupils. In 1980-81, HISD has 194,043 pupils, a decrease of 51,353. Some would explain the decrease in terms of the white flight phenomenon; however, Exhibit A dispels this reasoning for the decline in enrollment. Suburban school districts such as Spring Branch experienced an 18.9% reduction over a seven-year period, while HISD had only a 8.3% reduction over the same time period. Exhibit B, which indicates the District's membership by ethnic group, reveals other interesting data. Not only has our population decreased, but the ethnic proportions have changed. While the white population continues to decline, the greatest growth since 1974-75 has been in the Hispanic population. The current HISD percentages are 45% Black, 28% Hispanic, and 27% Other. At the state level, the fall 1980 count reflects 15% Black, 27% Hispanic, and 58% Other. Statewide, the composition of the first grade class of 1980 is 49% minority.

The recent court decision granting public education opportunities to undocumented children free of tuition meant an increase to some districts in enrollment. Due to the acquisition of this new population, which we estimate to be somewhere near 3600 in HISD, as of January 1981, the District experienced a growth rather than a loss in enrollment in the 1980-81 school year. At the state level, the estimate of the number of undocumented children who have enrolled as of October 1980 is 10,687.

INTERNAL AND EXTERNAL FORCES TO ADDRESS STUDENT NEEDS

Accompanying the fluctuating enrollment and changing student demographics, we have also been faced with the challenge of designing and implementing programs to address student needs. These needs mirror the population of the District. The District's response to these needs has been initiated from both internal and external forces. However, the goal of all programs is to provide the best possible educational opportunities to our children through the public education system.

Urban schools are responsible for educating a very mobile population and large numbers of economically and educationally disadvantaged children. Within HISD, 68% of our students are eligible for free or reduced lunch and the mobility rate for the District as a whole is 39%. Statewide, 33% of the students meet the requirements for receipt of free or reduced lunch.

Basic Skills Achievement

Since 1975 when standardized test scores reached an all-time low in HISD, the District has been aggressively involved in a Basic Skills program to counter this trend. The efforts of this program have paid off. In 1980, each of our elementary grades was at or above the national norm on their Iowa Tests of Basic Skills scores. A research study which compared HISD standardized tests to those of surrounding districts and other major urban districts revealed that "no other school district serving students with comparable socio-economic backgrounds" significantly exceeded the performance of students in HISD.

In response to state legislation, a statewide testing program was initiated in the spring of 1980. All students throughout the state in grades five and nine took the Texas Assessment of Basic Skills (TABS) based on learning objectives in reading, writing, and mathematics. At grade nine, 70% of the students across the state mastered the reading and mathematics learning objectives. In HISD, 64% of the ninth graders mastered the mathematics objectives and 63% mastered the reading objectives. These scores for the District and the state reinforce the need for continued basic skills emphases.

Technological Advances

Another powerful influence on education is technological advancement. In recent years business and industry have benefited from computer technology with resulting gains in productivity. It is likely that the new technology will have a similarly powerful impact on education. As a District we need to be in the forefront of these advances rather than to remain static in our educational methodologies.

Currently, computers have a number of applications in educational settings as instructional and management tools:

1. Direct instruction with individual students;
2. Tracking the progress and academic performance of students;
3. Campus level administrative functions; and
4. Reduction of paperwork for both the teacher and campus level administrator.

Video diskettes, now on the market but not yet used by the District, also appear to have great potential as instructional tools in the future. As an adjunct to the computer, the diskette would widen the teaching applications of sound and visual media.

In the last five years HISD has begun to utilize this new technology in several ways. Students at four Magnet schools use the PLATO system, a microcomputer which provides tutorial services in subjects such as foreign languages, English, and mathematics. In other elementary and secondary schools, students receive Computer Assisted Instruction (CAI), a drill and practice program in the basic skills. Also in the secondary schools, time sharing terminals are used to help students learn problem solving techniques.

Students who work with computers learn on a number of levels. They learn the arithmetic problem or spelling word that is being practiced, and they may also learn something about computer science or the limits of technology at the same time. Computers are also touted as motivational tools for students.

Recently, The Houston Chronicle (November 3, 1980) cited a projection that by 1985, seven of ten adults will be using computers at work. Such predictions suggest that the challenge to educators goes beyond utilizing the new technology as a tool for teaching. In business and industry, computer data bases are already replacing much of the written word. Educators will need to prepare students to be "computer literate," to read and write in the environment of the future.

Desegregation Efforts

In 1975 a Task Force was appointed to design a plan for Quality Integrated Education. The need emanated from a 1970 court order to desegregate our schools. Previous actions such as the pairing of schools had not proven successful, but in 1975 the court accepted the HISD Magnet School Plan as a means of providing quality integrated education. The plan was the result of community as well as educators' input and has proven to be a positive approach to the challenge. However, because of the population shifts referred to earlier, the District was becoming racially isolated and faced the long-range prospect of becoming an all minority school district. Thus, on the request of the Federal Court in 1979, the Texas Education Agency was asked to submit a plan to encourage "inter-district" cooperation in desegregation. This plan, involving the voluntary transfer of students from suburban districts into HISD, has been implemented and planning is currently underway to enhance these efforts.

Education of the Handicapped

Another external force which has affected the District's response to student needs was the passage of Public Law 94-142, The Education for All Handicapped Children Act of 1975. The focus of the law was a free appropriate public education in the "least restrictive environment" for all children. With the passage of this law, school districts now serve handicapped children formerly served in state, county, and private facilities and those students who received no service. Of the 313,930 handicapped students served statewide, the Houston Independent School District now serves approximately 18,000 handicapped children from birth - 21 years of age with the following handicapping conditions: language learning disabled, mentally retarded, speech handicapped, visually handicapped, orthopedically handicapped, auditorially handicapped, other health impaired, emotionally disturbed, deaf/blind, and severely and profoundly handicapped. The proportion of children with severe learning disabilities now attending public school has increased dramatically with the passage of P.L. 94-142. The types of services necessary to meet the special education needs of the handicapped population include speech therapy, adaptive physical education, occupational therapy, physical therapy, counseling and special transportation. According to a National School Boards Association report, the average cost for the delivery of these services in an urban school district was approximately 2.3 times the amount spent for non-handicapped students.

Bilingual Education

HISD began bilingual education programs in the 1968-69 school year utilizing funds from a Title VII Bilingual Education grant. Since that time the number of programs and the number of students served have greatly expanded. This expansion has been accelerated by the legal requirements for serving limited-English students and the recent court mandate to serve undocumented children on a tuition-free basis. Approximately 126,000 students were served across the state in bilingual programs. In HISD during the fall of 1980, approximately 16,288 limited-English students were identified as eligible for some type of special program.

The basic types of classes are self-contained bilingual education, Spanish Language Instruction Center (SLIC), and English as a Second Language (ESL) classes. In the fall of 1980, 10,874 students were enrolled in bilingual education and SLIC classes; and 3,130 were enrolled in ESL classes.

The expense of such programs may be estimated in terms of additional costs for the following:

(a) extra teacher aides and support staff

(b) extra classroom materials

(c) extra equipment

(d) extra library materials

(e) extra costs of screening and testing

(f) extra costs for staff development

An HISD study conducted in the 1976-77 school year estimated that such add-on costs were roughly $200 per student. Assuming an inflation rate of 10% for three years, an approximation of additional per pupil costs would be $266 per student. This estimate refers to students enrolled in self-contained bilingual education classes; the cost for students enrolled in ESL classes would be less.

Over and above the incremental costs, perhaps the biggest impact on school districts is the difficulty in obtaining qualified teachers to implement bilingual programs on a large scale. If the recent ruling by Federal Court Judge Justice (January 1981) is upheld regarding the inadequacy of the state program of bilingual education for grades K-3, this will further impact school districts' ability to secure qualified bilingual teachers.

Competency Testing

Another movement underway which has impetus from both internal and external sources is the Competency Testing Program. In HISD the Competency Program is primarily aimed at grades three, six, and eight. At each grade level, essential learner outcomes have been developed in reading and math. Students at grades three and six must achieve the essential learner outcomes before they are promoted. Students who are not promoted receive a special remedial curriculum in reading and math.

The program at grade eight is designed to help all students attain at least an eighth grade level of reading and mathematics skills by high school graduation. When this level of competence is met, it is noted on the high school transcript. When this level is not met at grade eight, students enroll in remedial courses in math and/or reading until the eighth grade level of competency is achieved. In 1979-80, 57% of the eighth graders in HISD did not reach the reading competency level and 62% did not reach the math competency level. All of these students therefore will be enrolled in remedial programs.

Extended School Year/Four-Day Week

Two possible options which seem to flow from the Competency Based Education philosophy deal with a) an extended school year, and b) a four-day school week at the secondary level. The idea behind both these suggestions is to find the best possible match between student needs, the educational delivery system, and taxpayer costs.

The extended school year, especially in the elementary grades, has several definite advantages. First, it would increase time-on-task. Rather than continue on a path of inundating students for nine months through a variety of pull-out programs, students who do not master prescribed achievement levels should have increased instructional time during the summer months.

While the extension of the school year would offer greater opportunity for instruction, research has shown that student learning depends on how the available time is used, not just the amount of time available. A recent research study by Stallings (Educational Researcher, December 1980 - Exhibit C) makes the following points:

- Time spent working with textbooks (as opposed to time spent with puzzles, games, and toys) was related to achievement in reading and math.

- Time spent in small groups (as opposed to one-to-one instruction) was also associated with student academic gain.

- Classrooms of initial low achievers demonstrated greater gains when teachers allocated more time for interactive activities (discussion, reading aloud, drill and practice) as opposed to non-interactive activities such as classroom management, written assignments, silent reading.

- Teachers' instructional interaction patterns were related to achievement. In classrooms where teachers provided more support and positive corrective feedback, the students gained more in reading achievement.

- The amount of classroom time spent "off-task" in activities such as social interactions, behavior problems, uninvolved students, and the transition time for passing or collecting papers was negatively related to achievement.

Thus, the extension of the school year must be accompanied by wise use of the instructional time available.

Changing educational demands require a change in tradition and attitudes. Tradition and attitudes would seem to be the only stumbling blocks to implementing an extended school year. While the initial reactions may be negative, the evidence of research data and the potential gains to be realized far outweigh any negativism generated.

Second, the limited-English proficient population could be better served. Federal bilingual mandates coupled with the influx of large numbers of limited-English proficient students, demand an effective means of dealing with the educational needs of the linguistically different child. It would seem unreasonable to expect that a nine-month program of quality instruction could enable these pupils to make the kinds of quantum jumps that may be necessary to achieve competency levels in mathematics, reading, writing and language. The restructuring of the school year to provide additional intensified instruction would go a long way in making competency levels achievable goals. Again, the time-on-task argument applies to the linguistically different child who could benefit from an extended school year.

Third, there is a cost effectiveness consideration. Through a redirection and enhancement of state and federal compensatory funds currently being targeted for use during the traditional school year, to the extended school year, the gains in terms of student achievement would likely be more cost effective. Funding formulas should be based upon education deficits rather than socio-economic data.

An example of how the extended school year program might operate follows:

1. The plan must be mandatory in order to be effective. (In HISD the optional Title I summer school program was attended by only 20% of the eligible students.)

2. Parents may, if they so choose, sign a waiver exempting their child from the program; however, it should be stressed that the schools cannot be solely responsible for the educational gains. Student learning is a shared responsibility and parents would be expected to motivate their children and to support the educational processes of the school.

3. The length of time a student would attend the extended year program would be tied to specified competency levels. For example, two-week, four-week, and six-week extensions would be prescribed based upon discrete cutoff levels in student mastery. Students with the greatest deficiencies would attend for the longest period of time.

4. The focus of the extended program would be the four basic skill areas of mathematics, reading, writing and language. A student whose deficiencies are in only reading and writing, for instance, would receive two (2) hours of instruction per subject per day over the specified time period. A formula such as the one below might be developed for structuring the student's time:

Percent of Mastery	Time Required for Extended Instruction
50-70% of objectives	2 hours/day per subject for 10 days
35-49% of objectives	2 hours/day per subject for 20 days
0-34% of objectives	2 hours/day per subject for 30 days

5. For the limited-English proficient population, an intensified program of English as a second language for the entire program day would be most appropriate. The results would enable the student to make sufficient gains to meet exiting criteria.

At the secondary levels, our problems become slightly different. Assuming a student has mastered the basics, the focus is now on enrichment and pre-employment skills. The Four-Day School Week has evolved as one approach to meet these phenomena. It has been utilized by industry, institutions of higher learning, and public school systems. The following benefits have surfaced where this plan exists:

1. Operation cost of plant, facilities, transportation, maintenance, absenteeism and use of teacher substitutes have been reduced by 20 percent.
2. Congressional legislation requiring observance of five national holidays on Monday has given laborers three-day weekends ten percent of the year.
3. Students' work quality was maintained or indicated improvement.
4. The effect on professional staff indicated higher morale due to the lengthened weekend, reduced stress on the job, and workers having more time to carry on personal business and be with their families.
5. Improving the school environment by better organizing the school week to allow for a division of time for skill building activities followed by enrichment or remedial activities on a fifth day.

Beyond the above list of advantages, the following benefits are expected from such a program:

1. Students interested in seeking jobs in the labor market will have a lengthened weekend for this pursuit;

2. The program offered in each high school will be competency based and job oriented to enable students to leave high school with basic academic survival and job entry skills.

3. Students will have the following options: (a) to graduate early, e.g., 18 credits; (b) to continue in school to meet U.I.L. regulation and college requirements; or (c) to exit early with competency certification, basic and survival, and job entry skills.

4. Fifth-day options will be provided for follow-up activities and practical experiences in the academic, community and private business sector.

5. The deliverance of instructional services will be enhanced by providing teachers more planning time for classroom activities, inservice programs, and professional improvement at local universities.

DECLINING TEACHER POPULATION

Just as the American family and student enrollment have undergone changes, so too the traditional ranks of teachers have evidenced changes. Two facts which must be dealt with in most urban settings are:

1. A decline in the number of teachers available for employment.

2. A decline in the academic quality of persons entering the teaching profession.

Quantity of Teachers

A decline in the number of persons entering the teaching profession has been verified in studies completed throughout the nation. Although the shortage is more apparent in some teaching fields than others, there is evidence that the number of persons entering all fields is declining.

The following points support this statement:

- The total number of initial teaching certificates issued for Texas public schools in 1979 was down one-third from the record high in 1972 from approximately 15,000 to 10,000. (Texas Education Agency)

- There was a 28% decline in number of undergraduates completing student teaching from 1973 to 1976 in 42 states surveyed. (Association for School and University Staffing Research Committee, 1976).

- There was a 7.7% decline in number of persons completing education degrees in Texas from 1976 to 1978.

- On a nationwide basis, 10% of college freshman women in 1979 planned to enter the teaching profession compared to 34% in 1969 (The American Freshman National Norms for Fall 1979.)

- Shortages of teachers exist in science, vocational and industrial subjects, and special education (a nine state study conducted by the University of Missouri, April 1979).

- As of December 1, 1980, the Houston Independent School District had the following shortage area vacancies:

5 Math	20 Bilingual
2 Science	35 Special Education

- State Commissioner Alton D. Bowen has predicted that by 1984-85, there will need to be a 55% increase in teachers for grades seven through nine and a 45% increase will be required for grades pre-kindergarten through six (Houston Chronicle, March 19, 1980). Mandated programs such as bilingual and special education will require teachers with specific certifications and expertise in greater numbers.

Quality of Teachers

The second problem facing school districts in the recruitment of teachers is the decline in the academic quality of those persons entering the teaching profession. Some of these factors which may influence the decision to enter teaching are salary, general working conditions in schools, and availability of career positions for women in fields other than education. Recent data reveal:

- Persons indicating they plan to enter the teaching profession have among the lowest academic performances on the SAT in 1979-80.

- Graduate Record Exam (GRE) verbal and nonverbal test scores for education majors have declined since 1970. Scores of education majors were substantially lower than scores of those majoring in eight other professional fields compared in 1975-76.

- Among graduating college seniors in the National Longitudinal Study (NLS) sample, class of 1976, the education majors' SAT verbal scores ranked fourteenth (14) out of 16 occupational fields. The two groups of graduating college seniors with lower scores were those studying office-clerical and vocational-technical fields.

In summary, in addition to having a shortage of teachers in critical teaching fields, fewer teachers are entering the total teaching profession and those who do tend to have a weaker academic background.

Commission on Standards for the Teaching Profession

In 1979 the Texas Legislature established a Commission to make specific recommendations to the 1981 Legislature for the purpose of improving teacher education. Having completed its work, the Commission made recommendations based upon input from lay persons and educators throughout the state. The proposed changes included:

1. There should be three classes of certificates established by the State Board of Education: Provisional, Standard, Professional. Each requires a probationary period and further coursework to improve and renew teacher training.

2. Admissions to an approved teacher education program in Texas shall require a student to pass a general literacy test and that all degreed persons seeking initial teacher certification in Texas shall be required to submit scores on subject area examinations for which certification is requested.

Pending the outcome of these recommendations in the legislature and the monetary appropriations to carry them out, new Texas teachers may face a revised set of requirements which will contribute to an upgrading of the teaching profession.

Career Options for Teachers

One factor which has contributed to the declining number of persons in the teaching profession is the variety of alternative careers now open for women. In the last decade, we have witnessed the entry of women into the work force in greater numbers. Statistics indicated that over 51% of women were part of the labor force in 1979. The traditional roles no longer apply and women in ever increasing numbers are finding jobs outside of the teaching profession.

If the law of supply and demand is allowed to operate in the teaching market, the teacher salary schedule must be upgraded. This might have the dual effect of increasing the supply and allowing more selectivity among candidates.

In an effort to assess the occupational status of persons who resigned from teaching, the Research, Evaluation, and Accreditation Department of HISD conducted a study in the fall of 1980 (Exhibit D). Attempts were made to contact the 535 persons who had resigned from the District in 1979-80. Two categories of resignations were selected as containing the population under study. The first group were those individuals who resigned and indicated they were taking "employment out of teaching." The second group were coded as "other" indicating they gave no reason for their resignation. Only these groups were selected because the remaining resignation codes indicated either retirement, teaching in another district, etc.

The highlights of this study indicated that:

- The teacher leavers were generally teachers with few years of teaching experience; the average number of years of HISD teaching experience was 2.3 years and their average HISD contract salary was $12,770 for 1979-80.

- Thirty-six percent (36%) of the teacher leavers entered a position that could be classified as "enterprising" or related to the business field. The majority of respondents (60%) had no previous experience in the field in which they took employment.

- Sixty-six percent (66%) of the respondents reported their current salary was higher than their teaching salary. Of these respondents, approximately one-half would consider returning to teaching if a comparable salary were offered.

- The median anticipated salary in three years was $26,000 and $30,000 respectively for the "other" category respondents and "employment out of teaching" respondents.

- A majority of the respondents (59%) indicated that their current position offered better fringe benefits. The benefit of paid insurance was cited by 91% of these respondents.

- Fifty-four percent (54%) of the teacher leavers reported their current position was less demanding than teaching.

These results reinforce the need for higher teacher salaries.

Incentive Pay for Teachers

A recent article in the Phi Delta Kappan (March, 1979) entitled "Would Bear Bryant Teach in the Public School? The Need for Teacher Incentives" summarizes some of the myths that surround the teaching profession:

- Teachers are somehow different from other human beings in that they will continually work beyond the call of duty without any hope of material reward.

- Students are more important to teachers than the teacher's self, family, and friends, and teachers will continue to take time from these other aspects of life in order to develop outstanding courses.

- An excellent teacher will see a lot of change in the students and therefore be motivated to continue striving for excellence.

The author also attributes much of the mediocrity in our public school system to the complete reliance on a salary-based-on-step system.

- The teacher reward system (or better, non-reward system) must bear responsibility for this lack of teacher motivation. Public education is paying the price as the quality of learning fails to improve, taxpayers pass Proposition 13s, and good teachers leave the public schools while the mediocre and catatonic remain to tap the public till. (A few good teachers do remain. May God have mercy on them, because the system won't.)

One method of increasing teacher salaries and potentially increasing motivation of teachers would be through an incentive pay plan. The results after the first year of implementation of the HISD Second Mile Plan seem to offer cause for encouragement. In contrast to merit pay plans, which are usually based on subjective personnel judgments, the Second Mile Plan had specific measurable criteria that provided the basis for incentive pay.

The Second Mile Plan was designed with careful consideration to delineating those areas which could realistically be addressed by an incentive pay plan. Four basic target areas were identified:

a. Improvement of instruction
b. Recognition of teaching as a rewarding career
c. Staff stabilization in urban schools
d. Shortage of teachers

The plan was structured such that teachers, having met certain baseline requirements, could receive stipends in six areas:

- Teaching in a High Priority Location
- Teaching in a Critical Staff Shortage Area
- Recruiting Another Teacher
- Outstanding Attendance
- Contributing to Outstanding Educational Progress
- Professional Growth

After one full year of implementation, several impacts of the Second Mile Plan were noted. While offering teachers the opportunity to increase their salaries by as much as $3500, the plan also had positive impacts on reducing teacher absenteeism and faculty turnover, reducing the number of teacher vacancies, and increasing student achievement. An evaluation of the Second Mile Plan in January 1981 by the Research, Evaluation, and Accrefitation Department revealed the following impacts:

- The percent of teachers who resigned, touk a leave, retired, or transferred to another campus decreased 1.6% from the 1978-79 to 1979-80 school year.

- The number of teacher vacancies at the beginning of the school year decreased from 613 in August 1979 to 205 in August 1980.

- Vacancies in critical staff shortage areas decreased from 251 in August 1979 to 87 in August 1980.

- The median percent turnover in high priority schools decreased from 3.5% to 1.5% from 1979 to 1980.

- The average number of teacher absences decreased from 9.0 absences in 1978-79 to 7.7 absences in 1979-80.
- Approximately $6.0 million in stipends was paid to approximately 6,600 teachers. The average amount paid in Second Mile Plan stipends to the 6,600 teachers was $936 which had the net effect of increasing these teachers' 1979-80 salaries by 6.4%.
- Approximately 51% of teachers surveyed in January 1981 agreed that the Second Mile Plan should be continued, 12% had no opinion, 33% disagreed, and 4% did not respond to the question.

Job Satisfaction

Monetary incentives alone are not the total solution to attracting and retaining teachers. Teachers' levels of satisfaction with other aspects of teaching can influence their desire to remain in the teaching profession. In a study conducted by the Research, Evaluation, and Accreditation Department in connection with an evaluation of the Second Mile Plan (Fall 1980), teachers cited the following aspects of teaching as less than satisfactory:

- pay relative to the amount of work
- amount of recognition received for their work
- extent to which good teaching is recognized by the District

On a broader basis, the 1980 Nationwide Teacher Opinion Poll conducted by the National Education Association (NEA) related the following (page 13):

- More than one-third (35 percent) are "dissatisfied" with their current job as a teacher, with almost 9 percent of those "very dissatisfied." Teachers in city school systems with 25,000 or more students and in high schools are a little more dissatisfied than other teachers.
- Those areas selected by a majority as having a negative effect on their job satisfaction are public attitudes toward the schools (66 percent), treatment of education by the media (60 percent), student attitudes

toward learning (60 percent), and salary (58 percent). About half say the status of teachers in the community (52 percent) and student behavior (49 percent) have a negative effect. Less than half indicate that class size (42 percent), opportunities for professional growth (37 percent), physical facilities/environment (36 percent), relationships with parents (25 percent), job security (23 percent), intangible rewards from teaching (20 percent), and relationships with other teachers (9 percent) affect their job satisfaction negatively.

- Two-fifths (41 percent) "probably would not" (29 percent) or "certainly would not" (12 percent) become a teacher if they could go back to their college days and start over again. This compares unfavorably with the 32 percent who felt that way in the 1979 Teacher Opinion Poll. Male teachers (52 percent), significantly more than female teachers (36 percent), would prefer NOT becoming a teacher again. Teachers in school systems with 25,000 students or more, with an M.A. or more, with 5 to 9 years of teaching experience, and who are NOT NEA members are a little more likely to say they would not become a teacher again.

- Exactly 9 percent will leave teaching as soon as they can, with another 21 percent undecided at the time of the poll. Only 43 percent will continue until retirement; this increases significantly for those with 20 years or more experience (72 percent). The rest (27 percent) will probably continue unless something better comes along.

ECONOMIC FACTORS

Cost of Decline

A recent documentary by the American Association of School Administrators entitled "The Cost of Decline" explains why a decline in enrollment does not necessarily lead to a proportionate decline in school costs. For example, some of the variables that affect costs are:

- Inflation - A local example dramatizing the impact of inflation is the cost of housing in the Houston Area. In 1971, the average cost of a home in the Houston area was $53,000. In 1980, the average cost was $88,000.

- Operating Costs - The expenses required to maintain the day-to-day operation of a school do not decrease proportionately when the enrollment decreases. Utilities and salaries continue whether the school has an enrollment of 500 or 400. It merely becomes less cost efficient to operate the school as the student population declines.

- Salaries - As the number of teachers in a district and the state gain experience, their salaries increase (longevity pay). Thus the more experienced a district's staff, the higher are the salary costs. Because policies allow that cutbacks be made according to seniority, the number of higher paid teachers is less likely to decline.

- Program Costs - In an effort to meet the needs of diversified student populations, a variety of programs have been initiated through either local or federal mandates. Special education needs of the handicapped under Public Law 94-142, bilingual education, vocational education, pre-primary education for 3-to 5-year-olds and competency testing programs are but a few of the expenditures which will continue independent of the fluctuation of student enrollment figures and these costs are considerable.

In response to the need to contain expenditures in the face of increasing inflation rates and a frozen tax base, HISD has been successful in controlling the growth in the number of public employees. The District has experienced an increase in percent of employees from 1976 to 1977 of 1.[illegible], an increase of 0.7% in 1978 and a decrease of 0.8% in 1979. In a study conducted by the Tax Research Association (Exhibit E), the local government in Texas (which includes school districts, cities, counties, and special districts) shows an increase in the number of employees at a rate of 4.7% in 1977, 3.6% in 1978, and 2.9% in 1979. Although the State government has shown smaller increases than the local government, HISD has been more effective than either in controlling the growth of the number of public employees. The District, at the same time, has been able to continue to maintain quality staffing and programs as evidenced by increasing achievement test score performance at many grade levels.

Consumer Price Index and HISD and State Teacher Salaries

During the last several years much has been said about the consumer price index (CPI) and its impact on salaries. The HISD Budgeting Department has prepared an analysis of the consumer price index and its relationship to the HISD and State teacher salary schedule (Exhibit F).

The results of this analysis are outlined below:

1. Entry level teaching positions (base salaries) have suffered greatly from inflation. The HISD B.A. base salary has fallen 21% below changes in the CPI and the state base salary has fallen 28%. The HISD M.A. base salary has fallen 24% below changes in the CPI and 30% below at the state level.

2. The salaries of teachers in transition from novice to experienced have moderately increased in purchasing power. An HISD B.A. teacher who started teaching in the 1970-71 school year has gained 14% above the change in CPI while a teacher on the state salary scheduled has gained 7%. A M.A. teacher who started teaching in the 1970-71 school year has gained 16% above the CPI in HISD and 6% above at the state level.

3. Heavily tenured teachers have maintained their standard of living, but have not shown measurable gains. A B.A. teacher with ten or more years of experience in 1970-71 has fallen 5% below the changes in the CPI over the last ten years in HISD and 7% below at the state level. An HISD M.A. teacher with ten or more years of experience in 1970-71 has remained virtually constant with the CPI, but at the state level the decline has ranged from 6% - 11%.

4. The relationship between entry level pay and maximum pay has altered significantly over the last ten years. In HISD ten years ago, B.A. teachers at maximum made 36% more than the B.A. minimum; they now make 64% more. M.A. teachers at maximum made 39% more than the M.A. minimum ten years ago; they now make 79% more. This same pattern is evident at the state level.

5. Over the last ten years, HISD has increased salaries more than the state, both in total dollar amounts and percentage increases.

Entry Level Salaries for Bachelor Degree Graduates

Public schools are in competition with the total job market in attracting qualified persons to fill their job openings. Graduates from Texas universities were surveyed by the Office of Postsecondary Planning in June 1980 to determine entry level salaries for bachelor's degree graduates entering the job market. The Research, Evaluation, and Accreditation Department compiled and analyzed the data to compare entry level salaries for different degree fields for the state and for Houston (Exhibit G).

The major generalizations from the study were:

- Generally, the more technical the degree field, the higher the entry level salary.
  - More technical degree fields such as engineering, computer science, and physical sciences graduates earn higher entry level salaries than other graduates.
  - Graduates with degrees in social sciences, liberal arts, communication, journalism, and education generally earn equivalent entry level salaries at the lowest end of the salary spectrum.
  - Business and management degree field graduates earn entry salaries at a mid-range between graduates with "technical" degrees and graduates with "social sciences" degrees.
- Houston area entry level salaries exceed those offered across the state as a whole in generally all degree field areas.

These findings were reinforced in a report of the job opportunities available to 1981 bachelor degree graduates as summarized in the article "Where the Jobs Are For the Class of '81" (U. S. News & World Report, January 26, 1981 - Exhibit H). A U. S. News & World Report survey of employers, job counselors, and students revealed that:

> There is heavy demand for graduates in highly technical fields, such as engineering and computer science, and business-related disciplines. But liberal arts students with few specialized skills will generally find job hunting a difficult task.

Beginning salary levels are dictated by the supply and demand of graduates. With lower level entry salaries, it will become increasingly more difficult to recruit students to enter the field of education. To remain competitive with urban and southwestern area job markets, it is imperative that districts in urban areas be able to offer salaries somewhat comparable to business/industry. Options such as expending to a 12 month school year or incentive pay may help to bring entry level teacher salaries in line.

Salary Comparisons for HISD, Texas and the Nation

A study of the salary levels paid to teachers in HISD, Texas and the nation was conducted by the Research, Evaluation, and Accreditation Department in January 1981. Both entry level and average paid salaries were examined from data collected from Educational Research Service (ERS) and the Texas Education Agency (TEA).

When minimum scheduled salaries were compared, HISD exceeded the state and the nation in 1979-80. The table below contains minimum scheduled salaries and average actual paid salaries for the 1979-80 school year.

Table 1
Minimum and Actual Paid Teacher Salaries
1979-80

	Scheduled Minimum	Average Actual Paid
HISD	$10,970	$15,298
Texas	$ 8,970*	$14,856
Nation	$10,602	$15,913

* State minimum foundation amount, not average minimum paid by Texas school districts

Data from the Texas Education Agency were analysed to determine the percent of teachers in Texas that were paid more than the national average ($15,913). For the 1979-80 school year, 27% of Texas teachers earned at least $15,913 or as much as the national average.

Although final data were not yet available for the 1980-81 school year, projections can be made on the basis of general salary information from multiple sources. When 1980-81 salary increases are projected from 1979-80 salaries at a rate of 12% for Texas, 14% for HISD, and 7% nationwide, some changes in the comparisons can be noted (see Table 2). Projections are also included for HISD, Texas and the nation for the 1981-82 and 1982-83 school years.

Table 2
Projected Average Teacher Salaries
1980-81 through 1982-83

	1979-80 Average Actual Salary	1980-81 % Increase Projected	1980-81 Projected Average Salary	1981-82 % Increase Projected	1981-82 Projected Average Salary	1982-83 % Increase Projected	1982-83 Projected Average Salary
HISD	$15,298	14%	$17,440	11%	$19,358	11%	$21,487
Texas	14,856	12%	16,640	11%	18,470	11%	20,502
Nation	15,913	7%	17,027	7%	18,219	7%	19,494

In 1980-81, the state average salary paid moves to within $400 of the national average and the HISD average exceeds that of the nation by approximately $400. Based on these projections, approximately 38% of Texas teachers will earn as much or more than the national projected average salary of $17,027. This figure represents an increase of approximately 11% over the figure (27%) for 1979-80 salary data. Carrying this projection forward to the 1981-82 school year approximately 45% of Texas teachers will earn as much or more than the national projected average salary of $18,219.

This gain in salary for Texas teachers reflects a healthier economy and wise financial management of schools in Texas. Teachers across the nation have suffered due to the oftentimes dire financial conditions of school systems. School systems such as Philadelphia gave no salary increases for the 1980-81 school year and many systems gave raises of 4% or less (Current Wage Developments, November 1980 - Bureau of Labor Statistics).

Although the salary levels of Texas teachers are approaching those of teachers across the nation, the levels are still below those of other professionals and make it difficult to attract the quality and quantity of teachers needed. One way to address both the instructional needs of students and the economic needs of teachers is to extend the school year as discussed in a previous portion of this paper. If the daily rate of teacher pay is projected to a 230 day work year (the number of days that 12 - month employees work in Texas public schools), the increases would be substantial.

Table 3
Salary Projections for 230-Day Contract
for Teachers

School Year		Average Salary	Days Worked	Daily Rate of Pay	Projected Salary for 12 Months Employment
1979-80	HISD	$ 15,298*	187	$ 81.81	$ 81.81 x 230 = $ 18,816
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1980-81	HISD	17,443*	185	94.27	94.27 x 230 = 20,913
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1981-82	HISD	19,358*	185	104.63	104.63 x 230 = 24,067
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
1982-83	HISD	21,487*	185	116.14	116.14 x 230 = 26,713
	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

* Projected salary amounts (see Table 2)

Fringe Benefits

Another economic factor that impacts teachers and all employees of public school systems is the provision of fringe benefits. Benefits such as total paid health insurance plans are provided to approximately 65% of workers in the Houston area (Bureau of Labor Statistics, November 1980). An added advantage of such a benefit is the tax savings that accrue to the employee when the employer pays the cost of such benefits. The employee pays income tax on the dollars he earns to pay a health insurance premium, whereas no income tax is paid if the employer pays the premium. (For example, an employee paying a health insurance premium of $108 per month, pays income tax for the year on $1296 [$108 x 12 = $1296].) This tax savings becomes even greater as the teacher's taxable income increases.

A recent article in U. S. News & World Report, (January 19, 1981) "Why Fringes Have Lost Some of Their Allure", reports that in 1979 fringe benefits accounted for just under 30% of the average worker's overall compensation. (Exhibit I). The data in Table 4 show the type and amount of fringe benefits received by the average worker and by HISD teachers. In examining the data for HISD teachers, it should be noted that the state pays 8.5% of the teacher's salary toward Teacher Retirement (each teacher pays 6.5%) and HISD does not contribute toward Teacher Retirement. Additionally, the state pays for 5 days of sick leave and HISD pays for 5 additional days for each probationary teacher and 10 additional days for each contract teacher.

Table 4
Fringe Benefits Paid in 1979
for Average Worker and HISD Teacher

Benefit	Average Worker*	HISD Teacher	
Social Security (employer's share)	$ 877	--	
Insurance	861	126	
Pensions	325	1300	Teacher retirement
Paid vacations	710	--	
Paid rest, lunch periods	539	--	
Paid holidays	482	--	
Workers' compensation	255	54	
Unemployment compensation	229	8	
Profit sharing	216	--	
Paid sick leave	187	818	
Christmas bonuses, suggestion rewards	64	644	Second Mile Plan
Other benefits	315	--	
Total	$5560	$2950	
As % of compensation **	30%	16%	

* Data Source: U.S. Chamber of Commerce (from U.S. News & World Report)
** Based on 1979 average salary of $13,218 for the average worker
Based on 1979-80 average salary of $15,298 for the HISD teacher

HISD teachers receive a total of 16% of their compensation in fringe benefits, while average workers receive approximately 30% of their compensation in fringe benefits. When these fringe benefits are included, the actual compensation level of the average worker exceeds that of an HISD teacher.

Average worker	$13,218	+	$5,560	=	$18,778
HISD teacher	$15,298	+	$2,950	=	$18,248

A survey of Houston Independent School District employees was conducted in November 1980 to determine what additional fringe benefits they desired (Exhibit J). The results of the survey are summarized as follows:

- There was a consensus among all types and categories of employees regarding the benefits that they would like to receive. That is, married and unmarried, male and female, those with and without children under 10, those that are and are not the sole support of their family, all age groups, and all levels of employees (professionals, aides, classified and clerical) selected similar benefits. No discernible differences could be found to indicate that any one group or type of employee preferred any benefit not generally preferred by the majority of respondents or other types of employees.

- The most desirable benefits selected by employees were:

  1) group health insurance premium for employee paid by District (78%),
  2) group dental insurance premium for employee paid by District (53%), and,
  3) retirement contribution for employee paid by District (48%).

- 55% of the employees selected paid group health insurance as their first choice of the benefits.

- Employees were asked whether they would prefer additional compensation instead of benefits. Respondents were equally divided on this question. However, among both groups, the selection of desired benefits was similar. Likewise those respondents who indicated that they currently participate in a group health insurance plan provided by their spouse or relative, selected health insurance and other benefits in a similar proportion to those who do not have group health insurance provided by their spouse or relative.

The results of this survey indicate that a consensus exists among all types of District employees regarding desired benefits. The provision of paid group health insurance, paid group dental insurance, and paid retirement contribution are the three benefits most desired by District employees.

Taxation Issues

One of the most complex issues to be dealt with is that of taxation. In the state of Texas and Houston, in particular, citizens have expressed concern about property taxation. The following section outlines the series of events which are vital to a comprehensive understanding of the Houston taxation situation and a historical perspective of the current mass reappraisal effort.

Historical data. The City Council was inundated with complaining taxpayers during the 1978 equalization process. Some areas of the City had been revalued more than once during a period when other areas of the City had not been revalued. Lawsuits and a referendum were threatened, leading to City Council's compromise to freeze the tax rolls at the 1977 values until the entire City could be revalued and posted at the same time. Alleged inequities existed at the time of the freeze, because many property assessments had not been updated since the late 50's. Since the freeze, the tax rolls have been increased only by new construction (valued at 1977 prices) and new personal property.

The following chart depicts the differences between the State Tax Practices Board's estimate of our true market value and those values as they exist on the City of Houston's tax roll.

1980 STAPB REPORT

	(Billions) Tax Roll Value	STAPB Value	% of True Market Value
A. Single-Family Residences.....	5.2	12.2	43%
B. Multi-Family Residences......	.9	1.5	59%
C. Vacant Lots..................	.7	1.1	63%
D. Commercial and Industrial....	5.7	8.2	70%
E. Business Personal............	4.6	4.0	94%

Taxpayers who were assessed last are carrying a disproportionate share of the tax burden, as are some classes of taxpayers. According to the STAPB report above, business inventories are being taxed at almost twice the rate as personal single-family residences.

It is unfortunate that this condition exists, but to perpetuate it by a freeze complicates the situation. A reappraisal of the entire City at one time was not within the tax office's capabilities. The City then looked to outside contractors to provide alternatives.

Legislative action. Meanwhile in Austin, tax reform was also underway in 1979. The 66th Legislature passed Senate Bill 621 which would shift the responsibility for property assessment to a central authority. This would dissolve all local assessing authority by 1982, including that of school districts, and would create one appraisal district for each county in Texas.

This new entity would be the official tax appraiser for the City of Houston and the Houston Independent School District along with dozens of other school districts, cities, water districts, hospital districts, etc. in Harris County.

The question is, "How can the new appraisal district do such a big job in such a short time?" In order to be operational in 1982, it stands to reason that the new appraisal district must take over the existing districts' tax rolls pretty much as they are.

In other actions by the 66th Legislature, House Bill 1060 was designed to reduce property taxes. It gave homeowners a $5,000 tax exemption and increased the over 65 exemptions to $10,000. The effect of this reduction in most school districts across the state was to force a tax rate increase or a reduction in school services. The tax rate increase then mostly affected business, since the homeowners received the exemption.

HISD increased its over 65 exemption to $15,000 in 1980. That exemption coupled with the $5,000 general homestead exemption took a majority of persons over 65 totally off of the taxpayers' list. Further, House Bill 1060 froze the value on the tax rolls for persons over 65, thereby exempting them from further re-evaluations.

Citywide/districtwide reappraisal. The City of Houston realized the condition of the tax rolls and that only outside assistance and new technologies could lend hope to the situation. The City tax office had fallen further and further behind on new appraisals, and new growth to the City was overloading the existing staff. As a result, a comprehensive appraisal plan was developed.

Components of the appraisal plan included:

> The adopted appraisal plan included a project of mapping that the City of Houston had underway and extended it to cover the needs of appraisal mapping. METROCOM, an acronym for the computerized system of the Public Works Department to locate streets, sewers, utilities, etc., was to be expanded to show property lines and building structures. Turner, Collie & Braden Inc. (TCB) was the prime contractor of that project. A second contract was awarded to Cole, Layer & Trumble (CLT) to appraise property within the City.

Local wealth for state funding purposes is not determined by our tax rolls but by a sample of our tax rolls as compared to market value. This sample is made by the State Tax Practices Board and a value is then established by them that becomes our wealth. In the 1980 tax year, our tax rolls reflected 20 billion dollars of taxable property, and that is the value upon which we collect local ad valorem tax. However, the STAPB values upon which we pay our local share of the state program reflects 32 billion dollars of taxable property. Therefore, we are paying 16¢ per 100 of value on 12 billion dollars of a tax base that we cannot access to raise taxes.

County Appraisal District implications. The legislature established the County Appraisal District and gave it the ability to impose a levy on taxing entities for its budget in 1981 and to take over the entire countywide appraisal function by January 1982.

The Harris County Appraisal Board adopted a resolution that it would use the most current values available. That would be the citywide "Mass Reappraisal Project" values which the City and HISD have been working with the contractors, TCB, and CLT to provide. The Appraisal District has estimated its budget in Harris County at over 6 million dollars and has billed taxing entities for their share that will approximate .49% of their tax rolls.

The Harris County Appraisal District is in the process of working with the Texas Legislature to approve the adoption of a three-phase plan. Since S.B. 621 specifically set the procedure and timetable for implementation of the Appraisal District values, it is necessary to amend the legislation to allow a phased-in approach.

The phase-in plan calls for the Appraisal District to implement the "mass re-appraisal" values for the City of Houston and HISD in 1982, then to include all adjacent school districts in the second phase (1983). Phase II would include approximately 8 school districts. Phase III, in 1984, would bring all of the other school districts in the County under the Appraisal District and include all other taxing authorities in the County including the County itself.

The phased-in approach will give the Harris County Appraisal District the time it needs to handle the mammoth technical and logistical problems involved in the task and will allow an orderly approach to equalizing values.

At this point in time the outcome can only be projected. It is hoped that legislation will be passed allowing the "Phased-in Plan", that the Appraisal District will be able to implement that plan, and that its implementation will provide the equalization function necessary to post the City's and KISD's tax rolls in 1982.

The Constitution clearly calls for a fair and equitable system to be used for taxation. The old tax rolls have been shown to be inconsistent and not systematic; therefore, the new rolls are more likely to stand the test of constitutionality.

Another consideration is the principle of fairness. This principle is violated when some property is on the tax rolls at 1957 values and some at 1977 values. If given the proper support, Senate Bill 621, the duly created appraisal district and the reappraised tax rolls for the City and KISD can solve the equalization problems.

Need for citywide/districtwide educational program. If the community does not understand the procedure and the reason for the new tax values, it will be most difficult to have a positive and harmonious adoption of the new tax rolls. Taxpayers must be told the full story, and a significant part of that story must include the fact that the tax rate will be lowered when the values are raised. Otherwise, taxpayers may be misled to believe that their taxes will be increased by 200-300 percent.

This effort will take a well-organized information campaign starting at the grass roots with our employees, PTA's, PTO's, civic clubs, communities, and mass media. Currently the District is undertaking programs to inform the community. Joseph Scherer, Director of the Office of Governmental Relations, (The School Administrator, November 1980) has stated:

> Public education after two decades of expansion is now in the midst of an enrollment decline and inflation. In spite of declining enrollments, costs and school tax rates are still climbing. Some reasons include the increase in number of expensive-to-educate children such as the handicapped, failure to fully fund federal mandates and excessive

> paperwork. Further cost pressures are caused by inflated prices for energy and purchased materials and services, as well as rising salaries. The squeeze between rising costs and lagging education revenues has finally caught up with many school programs, and the result is an increased resistance by taxpayers to support schools.

Mr. Scherer's article goes on to suggest another necessary action program to be undertaken by the District:

> Increases in education expenditures are unlikely to match the programs of the 1970's when education spending outpaced inflation. School administrators must provide a clear set of education priorities and objectives; otherwise, local districts will be expected to do more with less.
>
> Dollars alone won't solve problems, as we well know. As states come to grips with the needs to strengthen general aid, increase equity in per pupil expenditures, develop improved measures of fiscal capacity, increase support for students with special needs and adjure formulas to assist districts with problems such as municipal overburdening, there is a need for local practitioners to assert themselves.

Poll of Texas residents on taxation issues. In a poll conducted in December 1980 by the firm of Lance V. Tarrance, 82% of a sample of Texans reported they would pay more for education. Tarrance's poll was conducted by telephone and surveyed 1,000 Texans sampled on the basis of demographic characteristics. His results were reported by the Dallas Morning News on Saturday, January 31, 1981 (Exhibit K). When the survey issues were prioritized, 35% of the sample put the top priority on educational finance. Tarrance reported that citizens' concerns centered around more than just higher pay for teachers and included concerns about school crowding, low quality of education, and other matters.

SUMMARY

After setting forth some of the issues facing education in the 1980's, the challenge comes in providing the solutions which address these multiple concerns. Because the issues are complex and interdependent, so too the approaches to resolution must extend beyond local school districts. Changes must be made on a statewide basis if effective solutions are to be found. Independent actions by local districts may provide interim solutions, but the need for state level action cannot be minimized.

To briefly reiterate, the major focus remains the educational needs of our children; however, in our efforts to assure the best quality education, we are confronted with a declining teacher population, the need for higher teacher salaries and increasing competition among social services for tax dollars.

Some ways of addressing student needs while also addressing other concerns might be:

A. The adoption of an extended school year based upon the academic needs of students and financed by a redirection of state funds. In those districts with large populations of academically disadvantaged students, teachers would have the opportunity to earn salaries based upon a twelve month contract.

B. The implementation of incentive pay on a statewide basis to compensate teachers for working in certain critical fields (e.g. bilingual, special education) or for teaching in areas of the state where teacher shortages exist. The Minimum Foundations program alone does not make the kinds of allowances needed to attract and hold teachers.

C. The adoption of a salary schedule with increased fringe benefits, such as a statewide health insurance program for teachers. Compared to other workers in the labor force, teachers' fringe benefits are minimal.

D. Monetary solutions alone will not solve all the problems. Job satisfaction of teachers involves working conditions and public opinion toward education. The adoption of competency standards for the teaching profession will help to regain the confidence of the public and assist in attracting quality personnel to the teaching profession.

HARRIS COUNTY SCHOOL DISTRICTS
ENROLLMENT COMPARISONS

School District /	1970-71	1971-72	1972-73	1973-74	1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81	Percent of Decrease	Percent of Decrease Over Number of Years	HISD Percent of Decrease Same No. Yrs./ Other District
Aldine	24,736	27,152	28,459	29,495	30,801	32,461	33,130	33,086	33,050	33,323	34,056			
Alief	3,380	4,483	5,836	6,840	8,007	9,112	10,161	11,364	12,628	14,471	16,461			
Channelview	3,547	3,748	3,702	3,970	4,088	4,299	4,168	4,324	4,373	4,423	4,712			
Crosby	1,967	2,006	1,099	2,042	2,037	2,047	2,084	2,076	2,270	2,335	2,556			
Cy-Fairbanks	6,974	8,150	9,390	10,481	11,556	13,515	14,484	16,071	18,326	19,434	22,036			
Deer Park	6,729	6,960	6,813	7,092	7,453	7,940	8,276	8,288	8,408	8,097	8,488			
Galena Park	11,982	11,448	10,892	11,233	11,157	11,277	11,346	11,780	11,613	11,379	11,664			
Goose Creek	14,270	14,451	13,854	14,130	14,568	14,977	15,533	15,647	15,452	15,587	15,893			
Houston	239,336	231,412	224,167	216,589	211,603**	211,408	210,025*	207,000***	201,960	193,906	194,043	18.9%	11	
Huffman	906	1,043	1,177	1,195	1,244	1,345	1,419	1,550	1,773	1,880	1,878			
Humble	2,631	2,932	3,420	3,934	4,462	5,161	6,475	7,583	9,078	10,238	11,719			
Katy	1,580	1,676	1,753	2,007	2,313	2,963	4,048	5,279	6,907	8,657	9,893			
Klein	2,603	3,550	4,724	6,134	7,158	8,460	10,065	12,240	14,554	16,372	17,976			
LaPorte	4,451	4,711	4,777	4,840	5,100	5,125	5,345	5,388	5,635	5,991	6,136			
North Forest	15,545	16,258	14,661	17,398	17,543	17,779	18,071	18,100	17,933	17,695	17,252	4.7%	4	6.3%***
Pasadena	39,654	36,254	34,861	36,343	36,416	37,181	37,410	37,063	36,909	36,275	36,585	2.3%	5	7.6%*
Sheldon	2,795	2,932	3,118	3,171	3,227	3,525	3,466	3,633	3,663	3,864	3,914			
Spring	2,292	3,391	4,761	5,614	6,233	7,174	7,969	8,967	10,128	10,978	12,178			
Spring Branch	39,774	40,415	40,201	40,613	40,968	40,813	39,682	38,379	36,282	33,835	33,227	18.9%	7	8.3%**
Tomball	1,622	1,759	1,853	1,968	2,031	2,110	2,229	2,441	2,643	2,938	3,082			
Total	422,774	424,732	420,418	425,089	427,965	438,672	445,386	449,459	453,672	460,788	482,163			

OTHER TEXAS DISTRICTS

Alamo Heights	5,276	5,027	4,793	4,655	4,492	4,257	4,088	3,993	3,737	3,594	3,406	35.5%	11	18.9%
Dallas	164,005	158,934	154,380	153,549	149,510	144,385	139,080	136,546	132,061	130,357	130,346	20.5%	11	18.9%
Highland Park	5,183	5,088	4,752	4,620	4,620	4,659	4,614	4,567	4,620	4,583	4,584	11.6%	11	18.9%
San Antonio	77,253	74,955	72,308	70,530	68,509	67,352	65,712	64,377	63,309	61,816	60,984	21.1%	11	18.9%

Pupil Transfer Department
December 11, 1980

Exhibit A

HOUSTON INDEPENDENT SCHOOL DISTRICT
MEMBERSHIP BY ETHNIC GROUPS

OCTOBER 3, 1980

YEAR	WHITE	DIST. %	GAIN/LOSS	%	BLACK	DIST. %	GAIN/LOSS	%	HISPANIC	DIST.%	GAIN/LOSS	%	MEMBERSHIP	+/-	+/- %
1957-58	111,212	74.2			38,727	25.8							149,939		
1958-59	117,262	73.7	+ 6,050	- .5	41,918	26.3	+ 3,191	+ .5					159,180	+ 9,241	+ 6.2
1959-60	122,513	72.8	+ 5,251	- .9	45,749	27.2	+ 3,831	+ .9					168,262	+ 9,082	+ 5.7
1960-61	127,624	72.0	+ 5,111	- .8	49,606	28.0	+ 3,857	+ .8					177,230	+ 8,968	+ 5.3
1961-62	133,999	71.4	+ 6,375	- .6	53,784	28.6	+ 4,178	+ .6					187,783	+10,553	+ 5.6
1962-63	141,393	70.7	+ 7,394	- .7	58,487	29.3	+ 4,703	+ .7					199,880	+12,097	+ 6.4
1963-64	147,829	70.2	+ 6,436	- .5	62,744	29.8	+ 4,257	+ .5					210,573	+10,693	+ 5.4
1964-65	152,074	69.3	+ 4,245	- .9	67,318	30.7	+ 4,574	+ .9					219,392	+ 8,819	+ 4.2
1965-66	157,403	69.0	+ 5,329	- .3	70,844	31.0	+ 3,526	+ .3					228,247	+ 8,855	+ 4.0
1966-67	159,880	67.9	+ 2,477	-1.1	75,471	32.1	+ 4,627	+1.1					235,351	+ 7,104	+ 3.1
1967-68	162,953	67.7	+ 3,073	- .2	77,844	32.3	+ 2,373	+ .2					240,797	+ 5,446	+ 2.3
1968-69	164,661	67.1	+ 1,708	- .6	80,735	32.9	+ 2,891	+ .6					245,396	+ 4,599	+ 1.9
1969-70	159,176	66.9	- 5,485	- .2	78,755	33.1	- 1,980	+ .2					237,931	- 7,465	- 3.0
*1970-71	120,415	49.9	-38,761	-2.6	85,964	35.7	+ 7,209	+2.6	34,759	14.4			241,138	+ 3,207	+ 1.4
1971-72	108,707	46.9	-11,708	-3.0	87,104	37.6	+ 1,140	+1.9	36,111	15.5	+ 1,352	+1.1	231,922	- 9,216	- 3.8
1972-73	99,258	44.1	- 9,449	-2.8	88,864	39.4	+ 1,760	+1.8	37,275	16.5	+ 1,164	+1.0	225,397	- 6,525	- 2.8
1973-74	88,705	40.9	-10,553	-3.2	89,400	41.2	+ 536	+1.8	38,876	17.9	+ 1,601	+1.4	216,981	- 8,416	- 3.7
1974-75	82,447	39.0	- 6,258	-1.9	88,732	42.0	- 668	+ .8	40,190	19.0	+ 1,314	+1.1	211,574	- 5,407	- 2.5
1975-76	78,412	37.1	- 4,035	-1.9	90,034	42.6	+ 1,302	+ [illegible]	42,962	20.3	+ 2,772	+1.3	211,408	- 166	- .1
1976-77	73,647	35.1	- 4,765	-2.0	90,635	43.1	+ 601	+ .5	45,743	21.8	+ 2,781	+1.5	210,025	- 1,383	- .7
1977-78	68,713	33.2	- 4,934	-1.9	91,157	44.0	+ 522	+ .9	47,128	22.8	+ 1,385	+1.0	206,998	- 3,027	- 1.4
1978-79	62,211	30.8	- 6,502	-2.4	90,872	45.0	- 285	+1.0	48,877	24.2	+ 1,749	+1.4	201,960	- 5,038	- 2.4
1979-80	56,470	29.1	- 5,741	-1.7	87,797	45.3	- 3,075	+ .3	49,639	25.6	+ 762	+1.4	193,906	- 8,054	- 4.0
1980-81	53,024	27.3	- 3,446	-1.8	87,102	44.9	- 695	- .4	53,917	27.8	+ 4,278	+2.2	194,043	+ 137	+ .1

* Beginning 1970-71 school year numbers and percentages for Hispanic students reported separately (previously counted with White students).

Others from T.E.A. Fall Survey (Peak Enrollment)

John O. Taylor, Director
Pupil Accounting Department

Exhibit B

Exhibit C

Allocated Academic Learning Time Revisited, or Beyond Time on Task

JANE STALLINGS
SRI International

One of the most useful variables to emerge from the research on teaching during the 1970's was student time on task. Many educators are now convinced that if student time on task is increased, an increase in student achievement will follow. While keeping students on task may seem like a simplistic notion, it is a rather complex undertaking to make this construct useful in the classroom. Teachers need to be told more than just to allocate additional time to academic activities and to keep students on task. They need to know how to use time effectively in a variety of activities, how to vary time with different achievement groups, and how to support students to keep them on task. Previous research focused on the length of school days, actual scheduled class time, time allocated to academic subjects, and student engaged time. This paper looks more closely at the effects of the distribution of time across activities, the effective use of time with different achievement groups, and methods to guide teachers to use the findings from research on time management.

Previous Research

The length of a school day in elementary school or the length of a class period in secondary school defines the maximum amount of time available for instruction. Harnischfeger and Wiley (1978) found that the length of school day in the same district varied by 45 minutes for two second-grade classrooms. However, the variance of the actual time spent in class was slight. First-grade classrooms in the National Follow Through Observation Study (Stallings, 1975) varied as much as 1 hour and 30 minutes in length of school day; secondary class periods for remedial reading varied from 40-55 minutes (Stallings, Needels, & Stayrook, 1979). Findings from these studies indicate that mere length of the school day or the length of a class period in secondary schools was not related to student academic achievement. Clearly, student learning depends on how the available time is used, not just the amount of time available.

Researchers at the Far West Laboratory initiated the idea of Allocated Academic Learning Time in the Beginning Teacher Evaluation Study (BTES) (Fisher, Filby, Marliave, Cahen, Dishaw, Moore, & Berliner, 1978). Powell and Dishaw (in press), reporting data from the BTES, indicate that the Allocated Academic Learning Time for second graders ranged from 68-123 minutes per day, and for fifth graders from 49-105 minutes per day. The correlation of allocated learning time with achievement varied from one test to another in this study. However, in the Follow Through observation study (Stallings, 1975), time spent in mathematics, reading, and academic verbal interactions was related to achievement. Time spent working with textbooks (as opposed to time spent with puzzles, games, and toys) was related to achievement in reading and math. Time spent in small groups (as opposed to one-to-one instruction) was also associated with student academic gain. Conversely, time spent in more exploratory activities was positively related to scores on a nonverbal, problem-solving test and to a lower student absence rate. Similar relationships were also found in a study of California, third-grade Early Childhood Education classes (Stallings, Cory, Fairweather, & Needels, 1977).

It is of interest to know what percentage of time allocated to academic subjects is used by students to engage in academic work. Powell and Dishaw, in the study cited above, reported that the engaged time of second-grade students varied from 39-99 minutes, and that of fifth-grade students varied from 49-105 minutes. Student-engaged time was positively associated with student achievement in all tests and at both grade levels.

The variation in the amount of student engaged time by achievement groups was reported by Evertson (1980). On the average, low-achieving junior high students were engaged 40 percent of the time in academic activities compared with 85 percent engaged time for high-achieving students. Low-achieving students experienced less variation in the activities that occurred during the class period and had more dead time (nothing happening) than did the more able students.

Even though high-achieving students are more inclined to be engaged in academic tasks, it is of considerable importance to allocate sufficient time and effort to working with low-achieving

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students who may not be so inclined. Stallings (1975) reported that low-achieving third graders in Follow Through prospered more from an increase in time spent in reading and math than did the higher achieving students. Caution: For all students, there is a point at which more time does not produce more learning. Such curvilinear effects have been reported by Soar (1978).

The body of knowledge emanating from the research on teaching in the 1970's suggests that teachers should allocate more time to academic subjects, keeping in mind ability levels, and students should be kept engaged in the tasks. Such a recommendation will confirm what most teachers and administrators already know; however, the recommendation is not very helpful unless more specific statements are made about how to engage students and how to use academic time. We need to go beyond a simplistic notion of academic learning time to study the activities that occur within a class period and see how the time for those activities is distributed. If a class period has 45 minutes, how long does it take to get the show on the road? What is the balance of silent reading, written assignments, reading aloud, and instruction? Does the distribution of class time across activities make a difference? If so, does this difference vary among students with different reading levels?

Research Study of the Distribution of Time Across Activities

A two-phase study conducted in 87 secondary remedial classrooms suggests that the amount of time allocated to specific reading activities significantly affects student reading gain; further, this distribution of time affects specific reading levels. This study, The Teaching of Basic Reading Skills in Secondary Schools, was funded by the National Institute of Education (NIE) and carried out at SRI International by Stallings, Needels, and Stayrook (1979). The first phase (a correlational study) involved 43 teachers representing six school districts in Northern California. The second phase (a quasi-experiment) was conducted in the same districts and involved 44 teachers. Each teacher selected one class period for study. The class period was then observed for three consecutive days. Students in the selected classes were given the Classroom Environment Scale (Moos & Trickett, 1974) and teachers were given a flexibility/structured scale to rate their own behavior. Pretest and posttest reading scores, rating scales, and absence data were recorded for the students in the selected class periods. Partial correlations and analyses of variance of achievement groups were then computed to examine the relationships between observed instructional processes and class means for achievement gains and class means for absence rates.

The variables used to describe the instruction process were more specific than variables used in previous research on teaching reading. A matrix was devised to identify the reading activities actually taking place. The observer placed everyone—teachers, students, aides, and volunteers—somewhere on the matrix as soon as the bell rang. Five such matrices were spaced evenly over the rest of the period. Over the three days of observation, 15 such matrices were completed. From these data, questions could be answered regarding the percentage of observed time spent in specific activities, using specific materials, and working in specific group arrangements. Variables constructed from the data allowed an assessment of the allocation of time to each of these activities during the class period. The average percentage of time spent in each of these activities during Phase I and Phase II is shown in Table I. The distribution of time for the 2 years is very similar. These figures should not, however, be viewed as a criterion for distribution of time, but rather as statistics that approach a norm for secondary classes where basic reading skills are being taught.

When these activity variables describing the distribution of time across activities were correlated with student gain on the Comprehensive Test of Basic Skills (CTBS), several strong, positive correlations as well as strong, negative correlations were identified during both phases of the study (see Table II). The variables positively related to reading gain can be characterized as Interactive On-Task Instruction. Those variables negatively related to reading gain can be characterized as Noninterac-

TABLE I

Average Percentage of Observed Time Spent in Activities During Reading Class

	Spring Phase I (N = 43) (percent)	Spring Phase II (N = 44) (percent)	Grand Mean (N = 87) (percent)
Reading silently	12	15	14
Reading aloud	6	6	6
Making assignments	4	5	4.5
Instruction	18	13	15
Discussion	5	4	4.2
Drill and practice	5	2	3.5
Written assignments	21	21	21
Tests or quizzes	1	1.5	1
Social interaction	7	9	8
Student uninvolved	5	7	6
Being disciplined	0.5	0.3	0.4
Classroom management	26	26	26

Note. These activities may occur simultaneously; therefore, the sum is greater than 100%.

tive On-Task Instruction. This separation of interactive and noninteractive instruction (an important contribution of this study) goes beyond Time On-Task to describe how the time in remedial secondary reading classrooms should be distributed over academic activities.

For example, we know that the norm for discussion or review is four percent of the time. We would recommend that a secondary teacher of remedial reading students spend more time than four percent of the class period on discussion/review because in classrooms where there was more discussion or review (above the mean), more student gain was made. Conversely, in classrooms where more than the average time was spent in class management, written assignments, and silent reading, less reading gain was made. These findings do not suggest that silent reading or written assignments should be eliminated; they do suggest that the activities occurring in classrooms should be reasonably balanced between reading aloud, silent reading, and written assignments. At the time of this study reading aloud was occurring in relatively few secondary classrooms, but where it was occurring, it was positively associated with student gain.

Effective Use of Time with Different Achievement Groups

In the secondary basic reading skills study, we were interested to see whether student achievement levels interacted with effective teacher processes and reading gain. To examine these relationships, we conducted an analysis of variance that contrasted the instructional processes used in low-pretest/high-gain classrooms; moderate-pretest/moderate-gain classrooms; high-pretest/high-gain classrooms; and no-gain classrooms (see Figure 1).

Interactive On-Task Instruction Time

When we examined instructional processes being used in classrooms of initial low achievers (Group I) where more than average gain in reading was made, we found these teachers allocated more time to interactive activities. These teachers provided instruction 16 percent of the time, discussed or reviewed written work 12 percent of the time, and had students reading aloud 21 percent of the time (see Table III). Only 12 percent of their time was spent in management tasks where they were not directly involved with students. These percentages of time allocation are quite different from those of the no-gain classrooms and also different from the grand mean or norm of all classes (see Table I). While there was a trend for groups II and III to spend more time in these interactive activities than the no-gain group, it was much more important for the very low-achieving students in Group I to do more reading aloud, receive more instruction, and take part in more review of seatwork or discussion of stories which they had read.

TABLE II

Partial Correlations of Reading Activities and CTBS Scores

	Phase I (N = 16)		Phase II (N = 29)	
	r	p	r	p
Interactive On-Task Instruction				
Discussion/Review	.40	.001	.63	.001
Reading aloud	.36	.001	.28	.05
Drill and practice	.00	N.S.	.36	.01
Praise and support, reading task*	.29	.05	.54	.001
Supportive corrective feedback*	.50	.001	.28	.05
Noninteractive On-Task Instruction				
Classroom management	-.26	.05	-.30	.05
Silent reading	-.30	.05	-.48	.01
Sustained silent reading	-.30	.10	-.44	.001
Written assignments	.06	N.S.	-.41	.001
Off-Task Activities				
Organizing	-.34	.05	-.37	.05
Social interactions	-.82	.001	-.30	.05
Negative interactions	-.39	.05	.09	N.S.

*These variables are interaction variables.

Within the activities that occurred during the class period, the teachers' instructional interaction patterns were also related to achievement. In classrooms where teachers provided more support and positive corrective feedback, the students gained more in reading achievement. A similar finding from the Beginning Teacher Evaluation Study was reported by Filby and Cahen (1978). For secondary students who have a history of failure, this supportive type of interaction was particularly important. Again, the low-achieving secondary students (i.e., those achieving at the first-, second-, third- or fourth-grade level) prospered more and seemed to need this nurturing environment more than did those secondary students who were achieving at a higher level (i.e., at the sixth-, seventh-, and eighth-grade level) (see Table III). This is similar to a finding by Stallings (1975) in the Follow Through observation study, which indicated that the reading gain scores of third-grade students who entered school with less scholastic ability had a higher correlation with teacher support and praise than did the scores of students who entered with higher scholastic ability.

Noninteractive On-Task Instruction

In classrooms where the average gain was slight or negative, the teachers allocated more time to noninteractive instruction. For example, they were grading pa-

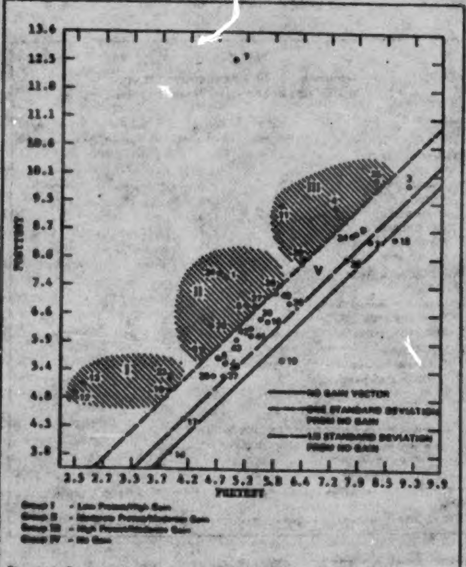


Figure 1. Scattergram of phase 1 pretest and posttest—CTBS scores
Note. Scores presented as grade equivalents.

pers, making lesson plans, or simply monitoring the classroom while students worked on written assignments or did silent reading. These variables have been included in Noninteractive On-Task Instruction. The students are on task, but the teacher is not teaching. In those classrooms where no gain was being made, the students were doing written assignments 28 percent of the time and reading silently 22 percent of the time, and teachers were doing classroom management tasks more than 27 percent of the time. If we compare these figures with those in Table I, we see they are all above the norm or the grand mean.

Off-Task Activities

A set of Off-Task variables were also found to be negatively related to reading gain. These include social interactions, behavior problems, uninvolved students, and the transition time it takes to get papers passed or collected. In classrooms where little or no gain was made (Group IV), these variables occurred more frequently than they did in classrooms where gain was made.

Teachers Can Be Trained to Use the Findings from Research on Effective Use of Time

The variables used in the study of Teaching Basic Reading Skills in Secondary Schools have considerable face validity which makes the findings understandable to teachers. The fact that the correlational findings in Phase I were generated from classes similar to the ones in which the Phase II teachers were working lent credibility to the research. The variables used in the study are very specific and translating them into recommendations for teachers was not a difficult task. Each teacher in the study received his or her own set of recommendations for behavior change based upon 3 days of observation in a class of his or her choice. For example, we observed Sam Jones' third-period class prior to a series of inservice workshops. He then received a behavior profile developed from the observations (see Figure 2). At that time, Sam Jones was spending 46 percent of the class time in management tasks (see pretest score for the first variable). This indicates that Sam was spending approximately one-half of the class time on tasks that did not involve students (e.g., grading papers or keeping records). The mean for all teachers on this variable was 26 percent. After interpreting the study findings to Sam, we made the recommendations shown in the left column of Figure 2. Our recommendation was to provide more instruction, more discussion, more feedback, and do *less* paper grading and record keeping during class time. A series of five workshops, which are very supportive and interactive, focused on how to manage classroom time, how to offer activities for different ability levels, and how to interact with and be supportive of students. Following these workshops, Sam Jones was observed to spend only seven percent of his time in management activities (see posttest score). His style of instruction became much more interactive. The profile shows how time spent in activities changed from one point to another. Interestingly, Sam had been teaching for over 20 years. He was trained to teach classical Greek and Latin and he was now teaching four remedial reading classes and one remedial math class. Sam had relegated teaching to workbooks and was waiting for retirement. He found, in making the recommended changes, that teaching became more fun—the students became more involved and were absent less frequently.

The activities described above occurred in Phase II of the Secondary Basic Skills study (Stallings, Needels, & Stayrook, 1979). It was a quasi-experimental study wherein a treatment group and a control group of teachers were observed in the fall, winter, and spring. The treatment teachers received six workshops which were based on findings from research on time allocation and interactions. For the most part, the treatment teachers changed behavior and distributed time across activities as recommended in midwinter and were observed to maintain the behavior through spring. Furthermore, their students gained, on the average, 6 months more in reading than did the control teachers' students. A late spring observation indicated that treatment teachers maintained most of their behavior changes, whereas control teachers' classes became more lax and less task oriented (see Table IV).

TABLE III
Distribution of Time Across Activities in
Four Ability Groups in Secondary Reading Classrooms

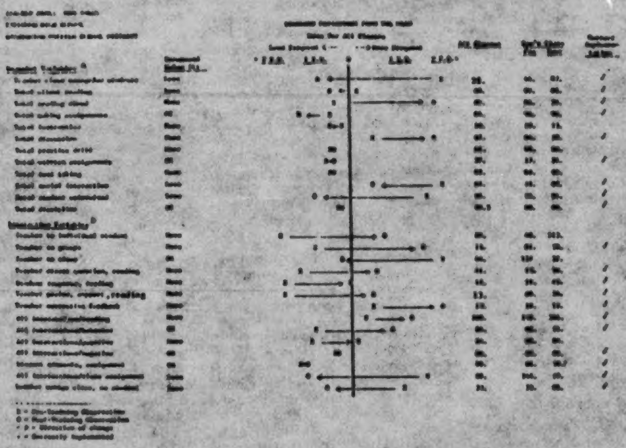
	Group I (X̄ Percent)	Group II (X̄ Percent)	Group III (X̄ Percent)	Group IV (X̄ Percent)
Interactive On-Task Activities				
Reading aloud	21	9	1	1
Instruction	18	11	17	10
Discussion	12	5	3	1
Drill and practice	4	4	4	2
Praise support*	19	16	7	11
Corrective feedback*	20	18	4	12
Noninteractive On-Task Activities				
Classroom management	12	15	17	27
Reading silently	9	18	12	21
Written assignments	4	22	23	28
Off-Task Activities				
Social interactions	5	6	2	8
Students uninvolved	6	4	4	9

Notes: Group I—Low pretest high gain
Group II—Moderate pretest moderate gain
Group III—High pretest moderate gain
Group IV—No gain
X̄ = Group mean

Note. These activities may occur simultaneously; therefore, the sum is greater than 100%.

* This variable is reported as frequency of occurrence per 45-minute period.

Figure 2. Profile of Sam Jones' pre- and post-training observations



[a] Reported in % of observed time.

[b] Frequency of occurrence per 45-minute period.

TABLE IV
Change in Treatment and Control Groups from
Fall to Winter to Spring

	Treatment Group (N=23)			Control Group (N=18)			
	Fall $\bar{X}$	Winter $\bar{X}$	Spring $\bar{X}$	Fall $\bar{X}$	Winter $\bar{X}$	Spring $\bar{X}$	Grand Mean $\bar{X}$
Interactive Instruction'							
Praise support, reading[a]	13	14	15	13	12	11	13
Supportive corrective feedback, reading[a]	10	11	13	17	12	18	18
Instruction (%)	13	15	15	11	9	8	12
Instructs Group (%)	5	7	7	1	5	3	4
Noninteractive Instruction'							
Written Assignments (%)	24	24	18	24	26	20	21
Teacher Management No Students (%)	21	24	22	21	26	25	26
Off-Task[c]							
Social Comments[b]	2	2	3	2	3	8	5
Bad Behavior[b]	10	6	6	7	8	8	8
Students Uninvolved (%)	5	5	9	5	5	14	11

% of observed time.
[a] Recommended to be above Grand Mean.
[b] Average frequency of occurrence during 45-minute period.
[c] Recommended to be below Grand Mean.

Conclusions

Given the findings from research on teaching in the '70's, educational models would not be complete without considering allocated learning time, student engaged time, distribution of time across activities, interactive instruction and student achievement level. The research on teaching has been driven not so much by theory as by a curiosity about the nature of effective and ineffective teaching processes. In all cases, the researchers went to classrooms and observed what teachers and students were doing. They studied what was occurring in classrooms where students were making gains, as well as where students were not making gains. Some of the studies used qualitative data, others used quantitative data; some were conducted concurrently, others sequentially. The communication among those who conduct research on teaching tends to be frequent and constructive. As new studies are mapped, methodologies and findings are compared to explore new frontiers of the teaching and learning territory. Thus, a body of knowledge regarding the management of time, tasks, and students is accumulating and can be useful in guiding the training of inservice and preservice teachers.

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Exhibit D

Survey of Teacher Leavers
January, 1981

A survey of teachers who resigned from the Houston Independent School District was conducted to determine what occupational fields these persons entered after leaving teaching. Personnel records from the 1979-80 school year were examined to locate the population of teachers who resigned from the District. Two categories of resignations were selected as containing the population under study. The first group were those individuals who resigned and indicated they were taking "employment out of teaching." The second group were coded as "other" indicating they gave no reason for their resignation. Only these groups were selected because the remaining resignation codes indicate either retirement, teaching in another district, etc.

A total of 535 persons resigned with either of these two codes (employment out of teaching, N=115; other, N=420). For each of these 535 individuals, an attempt was made to establish contact by telephone. Calls were made during the weeks of December 1-5 and December 8-12 in the evening from 6:00 pm to 8:30 pm by members of the Research, Evaluation and Accreditation staff. The telephone interviewers used a standard interview instrument to obtain information from the population under study.

The highlights of this study are summarized as follows:

- The teacher leavers were generally teachers with few years of teaching experience; the average number of years of HISD teaching experience was 2.3 years and their average HISD contract salary was $12,770 for 1979-80.
- Thirty-six percent (36%) of the teacher leavers entered a position that could be classified as "enterprising" or related to the business field. The majority of respondents (60%) had no previous experience in the field in which they took employment.
- Sixty-six percent (66%) of the respondents reported their current salary is higher than their teaching salary. Of these respondents, approximately one-half would consider returning to teaching if a comparable salary were offered.
- The median anticipated salary in three years was $26,000 and 30,000 respectively for the "other" category respondents and "employment out of teaching" respondents.
- A majority of the respondents (59%) indicated that their current position offers better fringe benefits. The benefit of paid insurance was cited by 91% of these respondents.
- Fifty-four percent (54%) of the teacher leavers reported their current position is less demanding than teaching.

The telephone interview process produced the following types of contacts.

TABLE I
Interview of 1979-80 Teacher Leavers
N=535

	Resignation Category		
	Employment Out of Teaching	Other	Total
Completed contacts	41	101	142
Interviewed	34(29%)*	42(10%)	76(14%)
Teaching	4(3%)	47(11%)	51(10%)
Not working	3(3%)	12(3%)	15(3%)
Incompleted contacts	74	319	393
Out of town	-	3(1%)	3(1%)
Refused interview	-	2(<1%)	2(<1%)
No answer	19(17%)	67(16%)	86(16%)
Incorrect phone number	55(48%)	247(59%)	302(56%)
TOTALS	115	420	535

*column percent

A total of 142 persons (27%) of the population of 535 were reached by phone. Of these, 51 were still in the teaching profession, 15 were not working, and 76 were working in positions outside of teaching. The 76 persons working outside of teaching, therefore, comprised our sample of teacher leavers to be interviewed. This figure represents 14% of the teachers who resigned from HISD at the close of the 1979-80 school year with a resignation category of "employment out of teaching" or "other."

Characteristics of Interviewed Teacher Leavers

The description of the demographic characteristics of those teacher leavers who were interviewed follows.

- The average number of years of HISD teaching experience was 2.3 years. 41% were first year HISD teachers.
- Seventy-one percent (71%) of the teachers held a bachelor's degree.
- The average contract salary of the teachers was $12,720.
- Seventy-one percent (71%) were female.
- Seventy-four percent (74%) were white, 18% black, and 8% Hispanic.
- Twenty-six (26) persons were elementary teachers, 20 were secondary teachers, 16 were special education teachers, 6 were bilingual teachers, 4 were math teachers, and 4 were science teachers.

Survey Results

A question-by-question summary of the telephone survey data is provided in this section.

Question: What is your job title?

The positions held by these individuals have been coded to fit the career classifications established by J.L. Holland in his book, Making Vocational Choices: A Theory of Careers. Table II contains the categories and percent of persons reporting employment in that category. The actual job titles are included in Appendix A.

TABLE II
Job Categories of Teacher Leavers

Category	Employment Out of Teaching		Other		Total	
		N		N		N
REALISTIC (e.g., security officer, roofer, bookkeeper)	14%*	(5)	12%	(5)	13%	(10)
INVESTIGATIVE (e.g., computer programmer, finacial analyst)	9%	(3)	14%	(6)	12%	(9)
SOCIAL (e.g., counselor, social worker, medical technician)	14%	(5)	21%	(9)	18%	(14)
CONVENTIONAL (e.g., secretary, clerk, airline reservationist)	14%	(5)	19%	(8)	17%	(13)
ENTERPRISING (e.g., salesperson, manager, business person)	43%	(15)	31%	(13)	36%	(28)
ARTISTIC (e.g., writer, interior designer, artist)	6%	(2)	2%	(1)	4%	(3)

*column percent

N = 76.

The category of positions held by the largest percent of individuals (36%) was in the "enterprising" category which primarily consists of those individuals entering the business field. A fairly even division of persons are employed in the other categories with the exception of the artistic category.

Question: Is this position a 10 or 12 month position and is it full-time or part-time?

Ninety-five percent (95%) of the persons were employed in 12 month positions and 98% were employed full-time.

Question: Did you have any previous work experience in this field before taking this position?

The majority of respondents (60%) had no previous experience in the field they entered.

Question: a. Is your current salary - lower than...about the same as... higher than - your teaching salary when you left HISD?

b. (If higher than) - If a comparable salary were offered you in teaching, would you consider returning to teaching?

A majority of teacher leavers (56%) indicated their current salary is "higher than" their teaching salary, 18% said "about the same" and 16% said "lower than." When asked if they would return to teaching if offered a comparable salary, the responses were significantly different for the two groups (see Table III).

TABLE III

Consideration of Return to Teaching
for Comparable Salary

Resignation Code	Yes, would consider returning	No, would not consider returning
Employment Out of Teaching	64%	36%
Other	28%	72%
TOTALS	46%	54%

A majority of those persons (64%) who resigned and indicated they were taking employment out of teaching indicated they would consider returning to teaching if a comparable salary were offered; however, only 28% of those resigning with the "other" code indicated they would return to teaching.

Question: a. Do you expect to hold this position in three years?
b. (If no) - What position do you expect to hold?

Approximately one-half (54%) of the persons expect to hold the same position in three years. Of those who expect to hold a different position, a majority indicated they hoped to advance in the same career field in which they are presently employed.

Question: What approximate compensation (salary) do you anticipate in three years?

Table IV contains a summary of the responses of each group.

TABLE IV

Expected Compensation Level in Three Years

Resignation Code	Salary Expected Minimum	Maximum	Median
Employment Out of Teaching	$17,000	$100,000	$30,000
Others	13,000	200,000*	26,000

*The teacher leaver who reported an anticipated salary of $200,000 is now a vice-president of a drilling mud supply company.

The median salary expected was $30,000 for the "employment out of teaching" group and $26,000 for the "other" group.

Question: a. Does your current position offer any fringe benefits that were more attractive than those offered in HISD?

b. (If yes) - What type of benefits?

A majority of the respondents (59%) indicated that their current position offers better fringe benefits than those offered in HISD. An overwhelming majority (91%) reported that their current position offers paid insurance.

Question: Would you say your current position is - less... about the same... more - demanding than teaching?

A majority of the respondents (54%) indicated that their current position is "less" demanding than teaching, 24% reported it is "about the same", and 22% said it is "more" demanding.

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Appendix A
Current Job Titles of Teacher Leavers

Realistic

Security officer (2)
Geological technician
Roofer
Fireman
Geology records specialist
Geological drafter
Bookkeeper
Maintenance specialist
Waitress
Security supervisor

Investigative

Assistant geophysicist
Geophysics analyst
Financial analyst
Computer programmer
Methods analyst
Chemist
Medical technician
Logistics manager
Claims adjustor

Conventional

Bank clerk
Airlines reservationist (2)
Data processing clerk
Bank assistant cashier
Corporate secretary
Secretarial (3)
Accounts receivable clerk
Typist

Artistic

Artist
Cultural arts coordinator
Music director

Social

Recruiter
Counselor in drug program
Day care center teacher
Employment counselor (3)
Private tutor
Administrative assistant in employee relations
Director of education in psychiatric hospital
Children's librarian
Social worker
Educational diagnostician
Speech pathologist
Leisure learning administrator

Enterprising

Educational consultant (2)
Professional beauty salesperson
Insurance agent (2)
Executive in drilling mud supply company
Restaurant manager (2)
Real estate agent (2)
Executive in own business (2)
Brokerage consultant
Manager in Research firm
Owner of catering service
Sales (retail) (8)
Business broker
Owner of gift and antique shop
Advertising executive
Account manager
Administrative assistant

Exhibit 1

Houston Independent School District

Tax Research Association

Texas Government Employment 1
More On Transit Taxes 3

VOL 33 NO 11 NOV 1980 TAX RESEARCH ASSOCIATION OF HOUSTON AND HARRIS COUNTY

BRIEFING

Texas State-Local Job Total Reaches U.S. Average

According to the U.S. Census Bureau, Texas is now a typical state in numbers of state and local government employees.

U.S. Census reports that the total number of state-local government jobholders in Texas rose from 422,000 in 1969 to over 666,000 in 1979. Growth in the number of public employees over the period, 58%, was triple the 19.5% growth rate in Texas' general population.

Texas public employee rolls grew from 377 jobholders per 10,000 population in 1969 to 498 in 1979. In the process Texas public employment relative to population surpassed such states as California (488) and Michigan (487). The average state has 497 public employees per 10,000. Texas public employment remains behind New York (539), Georgia (583), New Mexico (595) and Alaska with a record 775 employees per 10,000 population.

These public employee counts reflect full-time equivalents for the month of October 1979 compared to the same month in 1969.

The largest employee increases in Texas occurred at the local government level. About 75% of all Texas state-local employees are employed by local government.

State government is doing a better job controlling the number of employees, under democratic as well as republican administrations. School districts and county governments have shown the largest increases. For example, in a report issued last year TRA pointed out that the number county employees in Harris County had increased 109% during the 1969-78 period, nearly triple the 39% growth rate in general population. County government is just one example.☐

All States Comparison on Page Two

TEXAS GOVERNMENT EMPLOYMENT - 1979

	1979 Employees (FTE's)	% Total	Annual Growth Rate(%) 1977	1978	1979
State Government	167,635	25%	2.3%	1.6%	1.2%
Local Government					
Schools	300,397	45	5.4	3.7	2.9
Cities	120,313	18	4.1	0.5	2.9
Counties	58,736	9	8.1	2.8	0.3
Special Districts	19,189	3	(15)*	32*	10*
	498,635	75%	4.7	3.6	2.9
Total	666,270	100%	4.1	3.1	2.5

SOURCE: U.S. Bureau of Census

*special district growth rates are rounded and may include reclassifications in addition to newly created districts, entities absorbed through annexation, etc.

HISD SALARY SCHEDULE
Versus
The Consumer Price Index

		B.A. Teacher Base Salary		B.A. Teacher with 0 years Exp. in 1970-71		B.A. Teacher with 5 years Exp. in 1970-71		B.A. Teacher with 10 years Exp. in 1970-71		B.A. Teacher With 15 or more Years Exp. in 1970-71	
School Year	CPI*	Actual Base Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation
1970-71	100.0	7000	7000	7000	7000	8250	8250	9500	9500	9500	9500
1971-72	103.4	7100	7238	7410	7238	8960	8531	10200	9823	10200	9823
1972-73	108.2	7100	7574	7720	7574	9170	8927	10300	10279	10300	10279
1973-74	118.7	7200	8309	8130	8309	9680	9793	10710	11277	10710	11277
1974-75	131.4	7800	9180	9140	9180	10690	10841	11720	12483	11720	12483
1975-76	140.4	9300	9828	10850	9828	12550	11583	13300	13338	13300	13338
1976-77	148.3	9300	10381	11300	10381	13800	12235	13300	14089	13300	14089
1977-78	158.6	9860	11102	12720	11102	14380	13085	15020	15067	15020	15067
1978-79	174.5	10250	12215	13770	12215	14970	14386	15620	16578	15620	16578
1979-80	194.5	10970	13615	15360	13615	16710	16046	17470	18478	17470	18478
1980-81	219.8	12110	15386	17510	15386	19050	18134	19920	20881	19920	20881
Percent above (below) Consumer Price Index after 10 years		(21%)		14%		5%		(5%)		(5%)	

*For the years 1970-71 through 1979-80, the CPI figures have been converted to a base of 100.0 in 1970-71 by N.E.A. research. Recent U.S. Department of Labor statistics indicate a 13% change in CPI for 1980-81.

P10-40

KISD SALARY SCHEDULE
Versus
The Consumer Price Index

		Masters Teacher Base Salary		Masters Teacher With 0 Years Experience in 1970-71		Masters Teacher With 5 Years Experience in 1970-71		Masters Teacher With 10 Years Experience in 1970-71		Masters Teacher With 15 or more Years Experience in 1970-71	
School Year	CPI*	Actual Base Salary	Base Salary To Keep up With Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation
1970-71	100.0	7640	7640	7640	7640	8890	8890	10140	10140	10640	10640
1971-72	103.4	7720	7900	8030	7900	9580	9192	11130	10485	11440	11002
1972-73	108.2	7720	8267	8340	8267	9890	9619	11440	10972	11750	11513
1973-74	118.7	7820	9069	8750	9069	10300	10552	11850	12036	12160	12630
1974-75	131.4	8520	10039	9760	10039	11310	11682	13170	13324	13170	13981
1975-76	140.4	9900	10727	11630	10727	12890	12482	15000	14237	15000	14939
1976-77	148.3	9900	11330	12230	11330	13900	13184	15000	15038	15000	15779
1977-78	158.6	10480	12117	14000	12117	15130	14100	16860	16082	16860	16875
1978-79	174.5	10910	13332	15230	13332	16710	15513	17530	17694	18410	18569
1979-80	194.5	11670	14860	17060	14860	18240	17291	19700	19722	20090	20695
1980-81	219.8	12800	16793	19450	16793	20780	19540	22460	22288	22900	23387
Percent above (below) Consumer Price Index after 10 years		(24%)		16%		6%		1%		(2%)	

*For the years 1970-71 through 1979-80, the CPI figures have been converted to a base of 100.0 in 1970-71 by N.E.A. research. Recent U.S. Department of Labor statistics indicate a 13% change in CPI for 1980-81.

F10-40.1

STATE SALARY SCHEDULE
Versus
The Consumer Price Index

School Year	CPI*	B.A. Teacher Base Salary: Base Salary	B.A. Teacher Base Salary: Base Salary to Keep Up With Inflation	B.A. Teacher With 0 Years Experience in 1970-71: Actual Salary	B.A. Teacher With 0 Years Experience in 1970-71: Salary to Keep Up With Inflation	B.A. Teacher With 5 Years Experience in 1970-71: Actual Salary	B.A. Teacher With 5 Years Experience in 1970-71: Salary to Keep Up With Inflation	B.A. Teacher With 10 Years Experience in 1970-71: Actual Salary	B.A. Teacher With 10 Years Experience in 1970-71: Salary to Keep Up With Inflation	B.A. Teacher With 15 Years Experience in 1970-71: Actual Salary	B.A. Teacher With 15 Years Experience in 1970-71: Salary to Keep Up With Inflation
1970-71	100.0	6000	6000	6000	6000	6950	6950	7670	7670	7670	7670
1971-72	103.4	6000	6204	6300	6204	7300	7186	8050	7931	8050	7931
1972-73	108.2	6000	6492	6630	6492	7670	7520	8450	8299	8450	8299
1973-74	118.7	6000	7122	6950	7122	8050	8250	8870	9104	8870	9104
1974-75	131.4	6600	7884	7900	7884	9050	9132	9910	10078	9910	10078
1975-76	140.4	8000	8424	9670	8424	10670	9758	11780	10769	11780	10769
1976-77	148.3	8000	8898	10750	8898	11310	10307	11780	11375	11780	11375
1977-78	158.6	8460	9516	11090	9516	12690	11023	13250	12165	13250	12165
1978-79	174.5	8540	10470	11670	10470	12810	12128	13380	13384	13380	13384
1979-80	194.5	8970	11670	12850	11670	14060	13518	14660	14918	14660	14918
1980-81	219.8	9430	13188	14150	13188	15070	15276	15710	16859	15710	16859
Percent above (below) Consumer Price Index after 10 years		(28%)		7%		(1%)		(7%)		(7%)	

*For the years 1970-71 through 1979-80, the CPI figures have been converted to a base of 100.0 in 1970-71 by N.E.A. research. Recent U.S. Department of Labor statistics indicate a 13% change in CPI for 1980-81.

PIO-40.2

STATE SALARY SCHEDULE
Versus
The Consumer Price Index

		Masters Teacher Base Salary		Masters Teacher With 0 Years Experience in 1970-71		Masters Teacher With 5 Years Experience in 1970-71		Masters Teacher With 10 Years Experience in 1970-71		Masters Teacher With 15 Years Experience in 1970-71	
School Year	CPI*	Base Salary	Base Salary To Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation	Actual Salary	Salary to Keep up with Inflation
1970-71	100.0	6600	6600	6600	6600	7350	7350	8050	8050	8660	8660
1971-72	103.4	6600	6824	6950	6824	7670	7600	8450	8324	8870	8954
1972-73	108.2	6600	7141	7300	7141	8050	7953	8870	8710	9310	9370
1973-74	118.7	6600	7834	7670	7834	8450	8725	9310	9555	10270	10280
1974-75	131.4	7200	8672	8650	8672	9470	9658	10380	10578	10870	11379
1975-76	140.4	8600	9266	10450	9266	11310	10319	12270	11302	12780	12159
1976-77	148.3	8600	9788	10870	9788	11780	10900	12780	11938	12780	12848
1977-78	158.6	9020	10468	12130	10468	13250	11657	13830	12767	14380	13735
1978-79	174.5	9110	11517	12810	11517	13950	12826	14520	14047	14520	15112
1979-80	194.5	9600	12837	14060	12837	14950	14296	15560	15657	15850	16844
1980-81	219.8	10090	14507	15410	14507	16030	16155	16660	17694	17000	19035
Percent above (below) Consumer Price Index after 10 years.		(30%)		6%		(1%)		(6%)		(11%)	

*For the years 1970-71 through 1979-80, the CPI figures have been converted to a base of 100.0 in 1970-71 by N.E.A. research. Recent U.D. Department of Labor statistics indicate a 13% change in CPI for 1980-81.

FID-10.3

Exhibit G

Entry Level Salaries for Bachelor's Degree Graduates

Entry level salaries for professionals with bachelor's degrees was the focus of this study. The purpose of the survey of salaries was to compare entry level salaries of teachers and non-teachers entering the job market with a bachelor's degree. Data on entry level salaries of May, 1980 bachelor degree graduates from Texas colleges were available from the Office of Postsecondary Planning, Coordinating Board, of the Texas College and University System.

Data Collection

The study conducted by the Office of Postsecondary Planning of the Coordinating Board included May, 1980 bachelor's degree graduates from nine public universities (North Texas State, Southwest Texas State, Texas A & I, Texas A & M, Texas Tech, Texas Woman's, University of Houston, University of Texas at Austin, and University of Texas at El Paso). Graduates were asked to complete a short mail survey in June, 1980 which solicited the following data:

- Employment status
- Relatedness of job to degree earned
- Job title
- Job location
- Annual salary

These data were compiled and published in a report (Follow-Up of May, 1980 Graduates) dated October, 1980 by the Office of Postsecondary Planning. Each university participating in the study received a compilation of the data for their graduates.

Data from the state report and data from the University of Houston compilation are summarized in the following section.

Summary of Data

The average beginning or entry level annual salaries for various degree fields are reported in Table I for graduates across the state as a whole. In order to make valid comparisons, only those degree fields with at least 10 graduates were included in this table. Additionally only data from graduates who took a job that they reported as "directly", "closely", or "generally" related to their degree are included. The percent of graduates who indicated they took a job related to their degree is also included in the table.

Table I also includes a daily rate of pay for each degree field. This daily rate was calculated by dividing the average annual salary by 260 working days. This calculated daily rate of pay, therefore, includes pay for holidays and vacation. (If holidays and vacations were excluded, the daily rate would, of course, be higher.) The daily rate of pay for education degree graduates was calculated by dividing by 183 days. Teachers are not paid for holidays or vacation, but only for actual days worked, therefore, they receive their pay based on the actual number of teaching and inservice days, which is generally 183 days.

TABLE I
Entry Level Salaries for the State
by Degree Field

	STATE		
Degree	% in Related Job	Average Annual Salary	Daily Rate of Pay*
Biological & Physical Sciences			
Biochemistry/Biophysics	86%	$ 13,900	$ 53.46
Biology	56%	12,700	48.84
Chemistry	92%	18,600	71.53
Microbiology	91%	11,600	44.62
Geology	96%	20,100	77.30
Physics	100%	16,800	64.62
Zoology	76%	12,000	46.15
Range		12,000 - 20,100	
Business & Management			
Accounting	96%	15,800	60.77
Finance	89%	14,200	54.62
Business Administration	80%	15,500	59.62
Management	84%	14,000	53.85
Marketing	91%	14,000	53.85
Secretarial/Office Adm.	91%	14,200	54.62
Range		14,000 - 15,800	
Engineering & Technology			
Architecture	90%	13,300	51.15
Architectural Engineering	100%	17,600	67.69
Chemical Engineering	98%	22,100	85.00
Civil Engineering	98%	19,800	76.15
Electrical Engineering	99%	22,000	84.63
Industrial Engineering	97%	19,700	75.77
Mechanical Engineering	98%	20,700	79.61
Petroleum Engineering	100%	24,600	94.62
Bioengineering	96%	17,100	65.77
Mechanical Technology	92%	18,700	71.92
Civil Technology	100%	18,900	72.69
Range		13,300 - 24,600	
Communications & Journalism			
Journalism/Communications	80%	11,300	43.46
Telecommunications	76%	12,100	46.54
Range		11,300 - 12,100	
Computer/Info. Science & Mathematics			
Computer Science	100%	18,200	70.00
Mathematics	67%	11,000	42.30
MIS	100%	17,500	67.30
Range		11,000 - 18,200	

TABLE I (Cont.)

	STATE		
Degree	% in Related Job	Average Annual Salary	Daily Rate of Pay*
Fine & Applied Arts			
Art	84%	$10,300	$39.61
Studio Art	77%	8,600	33.08
Fine Art	71%	10,400	40.00
Music	29%	11,300	43.46
Range	8,600 - 10,300		
Health & Medical			
Nursing	98%	14,200	54.62
Occupational Therapy	83%	12,600	48.46
Pharmacy	100%	19,700	75.77
Medical Technology	100%	13,100	50.38
Range	12,600 - 19,700		
Liberal Arts & Languages			
English	76%	11,200	43.07
Spanish	54%	10,700	41.15
Speech	100%	18,100	69.62
Speech/Drama	88%	9,300	35.77
Range	9,300 - 18,100		
Social Sciences			
Economics	59%	14,300	55.00
Government/Political Science	45%	9,900	38.08
History	26%	12,200	46.92
Psychology	66%	13,500	51.92
Social Work (Services)	85%	12,400	47.69
Socialogy	72%	11,800	45.38
Criminology	85%	13,200	50.77
Criminal Justice	60%	12,200	46.92
Range	9,900 - 14,300		
Education			
Elementary Education	81%	10,800	59.02**
Secondary Education	84%	11,100	60.65**
Special Education	100%	11,700	63.93**
Physical & Health Education	83%	13,900	75.96**
Range	10,800 - 13,900		

* Calculated on basis of 260 working days (includes paid holidays and vacations).
**Calculated on basis of 183 working days (does not include holidays or vacation).

If the entry level daily rate of pay of elementary education degree graduates, based on 183 working days, were projected to a 230 day work schedule (the number of work days that 12 month employees work in Texas public schools) the average entry annual salary would be $13,574 per year compared to the annual entry level average of $10,800. Currently, of course, teachers do not have the option of working in the public schools in excess of their 183 day contract, with the exception of those teachers who teach in summer school programs.

Table II contains entry level salary range information for the state and for the University of Houston graduates. These data are presented under the assumption that the majority of U of H graduates take employment in the Houston area and that a majority of the graduates across the state take employment in other urban, suburban, or rural areas of Texas. A comparison of the salary ranges, therefore, should be an indication of the job market in Houston compared to the state as a whole.

TABLE II
Salary Ranges for the State and
for University of Houston Graduates
by Degree Areas

	Salary Range	
Degree Area	State	U of H
Biological & Physical Services	$12,000 - $20,100	$13,700 - $21,600
Business & Management	$14,000 - $15,800	$13,900 - $16,600
Engineering & Technology	$13,300 - $24,600	$18,000 - $26,800
Communications & Journalism	$11,300 - $12,100	$11,800 - $14,400
Computer/Information Science & Mathematics	$11,300 - $18,200	$15,600 - $18,200
Fine & Applied Arts	$ 8,600 - $10,300	$11,900 - $13,300
Health & Medical	$12,000 - $19,700	$19,700
Liberal Arts & Languages	$ 9,300 - $18,100	$11,400
Social Sciences	$ 9,900 - $14,300	$10,700 - $20,500
Education	$10,800 - $13,900	$11,500 - $16,300

From the data in Tables I and II, several summary statements can be generated.

- Generally, the more technical the degree field, the higher the average annual entry level salary.
    - More technical degree fields such as engineering, computer science, and physical sciences graduates earn higher entry level salaries than other graduates.
    - Graduates with degrees in social sciences, liberal arts, communication, journalism, and education generally earn equivalent entry level salaries.
    - Business and management degree field graduates earn entry salaries at a mid-range between graduates with "technical" degrees and graduates with "social sciences" degrees.
- Graduates who earn higher entry level salaries are generally in fields where a high percentage of graduates indicate their job is related to their degree.
- Houston area entry level salaries exceed those offered across the state as a whole in generally all degree field areas.
- Graduates in degree fields that find a high entry level salary generally take a position related to their degree field in a higher proportion than other graduates.

Exhibit H

Labor

Where the Jobs Are For the Class of '81

It's shaping up as a good year for college graduates to find work. Openings will increase, particularly for those with technical skills.

Susan Tessier, a senior in electrical engineering at Houston's Rice University, already has two job offers with starting salaries up to $25,000. But she's holding out for an even better deal.

Mike Lupo, a journalism major at Michigan State University, cannot find work. He has sent his résumé to 73 newspapers so far. "It doesn't look encouraging," he says.

That is the kind of feast-or-famine job market awaiting the more than 1 million students who will graduate from college this year.

Over all, hiring of graduates should be up noticeably from last year. Frank S. Endicott, who contacted 135 large companies for Northwestern University, predicts a 15 percent jump in hiring of persons with bachelor's degrees and a 10 percent increase in jobs for those with advanced diplomas. The College Placement Council's survey of 565 businesses indicates a 10 percent rise in job opportunities for graduates.

A *U.S.News & World Report* survey of employers, job counselors and students confirms those predictions. There is heavy demand for graduates in highly technical fields, such as engineering and computer science, and in business-related disciplines. But liberal-arts students with few specialized skills and little employment experience will generally find job hunting a difficult task. Starting pay in most fields will show only modest increases.

"Employers are more cautious this year in their approach to hiring college graduates," says John D. Shingleton, director of placement services at Michigan State University. "Recruiters feel they must adjust to a very sensitive economic climate and their manpower planning must be timed accordingly."

Consequently, businesses facing a poor or uncertain year are cutting back or holding steady on college recruitment. Those with a rosier outlook for 1981 are putting out the most "help wanted" signs.

"We will hire about as many graduates in the technical disciplines as we can find," says a Standard Oil of Indiana spokesman. "Everyone is trying to get people with degrees in engineering, geophysics and other technical fields."

McDonnell Douglas Corporation in St. Louis plans to hire about 550 grads this year, the same as last year. "The field in most demand by far is electrical engineering," says Allan Adelsberger, manager of professional recruiting at McDonnell Douglas. He is sending recruiters to 82 colleges.

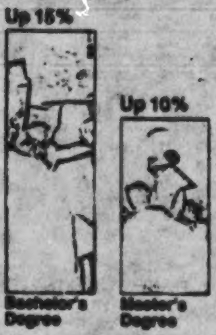
Fluor Corporation, an international construction firm based in Irvine, Calif., plans to hire 350 graduates in mechanical, civil, electrical and chemical engineering—140 more than last year. The firm is nearly doubling its recruiting effort, visiting 65 campuses.

"The demand for engineers seems recessionproof," says James A. Marks, director of the College of Engineering placement office at the University of Wisconsin-Madison. He says nearly 600 firms visited the campus last fall. "We had at least two recruiters for every student who took a job."

Business graduates also are in de-

Job Outlook For This Year's Grads

(change from year ago)



Employment Prospects in Detail

	Average Monthly Salary	Job Outlook for 1981 Graduates (compared with 1980)
Bachelor's Degrees		
Accounting	$1,416	Demand increases about 10 percent
Business administration	$1,360	Only modest improvement
Chemistry	$1,[illegible]	Prospects improve slightly
Computer science	$1,687	Up about 30 percent—big growth area
Economics, finance	$1,407	Slight drop in demand
Engineering	$1,844	Hiring to increase nearly 20 percent
Liberal arts	$1,287	Small decline in hiring
Mathematics, statistics	$1,650	Little change from year ago
Sales, marketing	$1,435	A 25 percent increase in hiring seen
Other fields	$1,[illegible]	Holding steady
Master's Degrees		
Engineering	$2,084	Hiring up more than 20 percent
Other technical fields	$1,865	Demand increases nearly 10 percent
M.B.A. with technical bachelor's degree	$2,[illegible]	Prospects improve 15 percent
M.B.A. with nontechnical bachelor's degree	$1,880	Slight decline in hiring
Accounting	$1,708	Modest increase seen
Other nontechnical fields	$1,771	Up less than 10 percent

mand. Southern Bell Telephone, headquartered in Atlanta and covering Georgia, Florida and the Carolinas, will hire 600 graduates this year—10 percent more than in 1980—most of them in marketing and computer fields. The Republic National Bank of Dallas plans to increase recruiting by 15 to 20 percent, and New York-based Citicorp, the nation's second largest bank, will hire about 400 graduates for its domestic operation—the same as a year ago.

The outlook is not as bright for graduates in liberal-arts fields, such as journalism, teaching and sociology. Employers indicate they will hire 7 to 8 percent fewer nontechnical graduates this year.

Bad news for some. "We just don't have any openings for liberal arts," says Adelsberger of McDonnell Douglas. Observes Glen O. Pruitt, vice president of personnel for Blount International, Ltd., a construction firm in Montgomery, Ala.: "We get some who apply who've majored in the mating habits of the South African hare or medieval religion. It may be interesting to know, but what can you do with it?" His firm will be hiring 30 to 60 engineering graduates in 1981.

In years past, government agencies were large employers of liberal-arts graduates. But federal hiring is under a partial freeze. "The government is even a little more tenuous than business this year," says Thom Rakes, placement coordinator at the University of Missouri in Columbia.

The situation is not entirely bleak for seniors in nontechnical fields. Some experts see early signs of teacher shortages in a number of areas. Others say [illegible] liberal-arts graduates are so plentiful, many companies are not actively recruiting but will hire some who apply. Notes Don Briggs, placement director at Oklahoma State University: "A good sharp kid with his act together and his job hunting organized can find a job."

Not keeping up. Those lucky enough to find jobs may be disappointed by the starting pay. Most companies report that salaries are 7 to 10 percent higher than last year, somewhat less than the 12.6 percent inflation rate of the past 12 months.

Once again, engineering and technical jobs will draw the highest starting pay—$19,000 to $25,000. Universities report that liberal-arts and humanities majors typically earn from $10,000 to $15,000. "Supply and demand is dictating salaries," says H. Edward Babbush, director of career planning at California State University, Long Beach.

College placement officials report that many firms, attempting to get first crack at the best graduates, are changing their recruiting tactics this year. Many visit campuses earlier and concentrate efforts at colleges and universities where they have had success in the past.

Last year, 350 companies sent 700 recruiters on 10,000 interviews at New York University. This year, 400 companies are sending 950 recruiters on 12,000 interviews. "The companies may not be seeking any more graduates than they did last year, but may simply be concentrating their efforts at fewer institutions," says an NYU spokesman.

Glenn Gamble, director of career development and placement at Rutgers University, New Brunswick, N.J., says the number of recruiter visits this year will be down. "But the number of interviews with graduates will be up. What we're seeing are recruiters conducting more interviews during their one visit."

The University of Arizona reports the fall recruiting season was its busiest in 11 years, with most attention focused on engineering, computer science and accounting students who will graduate this spring. Observes Ronald Hummel, director of placement: "A company that doesn't come in until the end of February can't act fast enough to be part of a student's decision-making process."

Students also are being advised to get an early start in setting up job interviews. Some colleges enroll students in job-placement programs during the sophomore year to prepare them for the job market. Many schools are helping students find summer employment and internships that will provide the on-the-job experience many employers require.

Observes the University of Arizona's Hummel: "The student who starts early to build credentials and contacts will find a job, whether the major is anthropology or journalism. There is no such thing as an unmarketable degree—just unmarketable people." ☐

Exhibit 1

Labor

Why Fringes Have Lost Some Of Their Allure

To keep abreast of inflation, employes are asking more for wage raises, less for new benefits. Still, "extras" now average $5,560 per worker.

For the first time in more than a decade, the costs of employe fringe benefits are growing less rapidly than wages.

Such extras as paid vacations, sick leave, life and health insurance, pension-plan contributions and dozens of other fringes now account for just under 30 percent of the average worker's overall compensation—a slight decline from past years.

The reason for the downturn, say business and labor officials, is that workers and their unions now are more intent on beefing up their pay to keep pace with rapid inflation. "People don't think as much about a fatter pension 20 years from now when they are having trouble buying groceries today," remarks a business spokesman.

Still, the costs of fringe benefits paid by companies are higher than ever in dollar terms. At latest count, according to a study of 983 companies just completed by the Chamber of Commerce of the U.S., the typical firm paid $5,560 per worker for fringe benefits.

That figure, for 1979, amounts to 29.6 percent of the average worker's total compensation and has risen 8.2 percent from 1978, when $5,138 in fringes accounted for 29.0 percent of all compensation.

During the same period, says the chamber, annual cash pay grew by 9.6 percent to $13,218 for the average worker.

While employes' wages climbed faster in 1979, fringe benefits have grown far more rapidly over the long run. Since 1969, annual costs of fringe benefits have climbed 171 percent—36.8 percent in "real," inflation-adjusted terms. During the same period, wages grew 108 percent—2.2 percent in real terms.

420 billion in benefits. When the final 1980 figures are tallied, says the Chamber of Commerce, American companies will have spent a record 420 billion dollars on employe benefits above regular pay, up from 380 billion in 1979.

While part of the increase will result from some firms' adding new benefits, say the experts, most will stem from the rising costs of providing existing services.

The most expensive items in today's typical fringe package involve pensions and insurance. The Chamber of Commerce study shows that employers in 1979 spent an average of $977 per worker for Social Security, $961 for life and health insurance and $925 in contributions to private pension plans. Next in line were paid vacations, rest and lunch periods, and holidays.

Other typical employer-paid benefits include workers' compensation and unemployment compensation—both required by law—sick leave, profit sharing, Christmas bonuses and awards for suggestions.

Some firms are experimenting with less customary fringe benefits—such as company-financed homeowner, auto and legal insurance—in hopes of attracting younger employes less interested in pensions and life insurance.

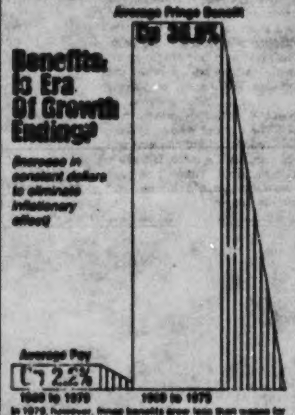
One insurance firm that is now offering group auto and homeowner insurance reports that 118 companies in 13 states already have signed up for such plans.

The Chamber of Commerce study shows that manufacturing firms tend to pay out a larger share of payroll for fringe benefits than do banks, insurance companies and other nonmanufacturing concerns.

Among industries, the highest benefits were paid by petroleum, chemicals, transportation equipment and primary metals. At the bottom of the list were textile and apparel manufacturers, hospitals, and retail and wholesale firms. ☐

Benefits: Is Era Of Growth Ending?

(Increase in constant dollars to eliminate inflationary effect)



In 1979, however, fringe benefits grew less than wages for the first time in years.

How Industries Rank in Fringes

Average costs per worker for fringe benefits in 1979—

Manufacturing	
Petroleum	$9,125
Chemicals	$7,981
Transportation equipment	$6,985
Primary metals	$6,875
Nonelectrical machinery	$5,919
Electrical machinery	$5,564
Fabricated metals	$5,304
Instruments	$5,252
Stone, glass, clay	$5,240
Food, beverages, tobacco	$5,188
Printing, publishing	$5,114
Pulp, paper, lumber, furniture	$5,062
Rubber, leather, plastics	$4,811
Textiles, apparel	$3,098

Nonmanufacturing	
Public utilities	$7,486
Banking, finance	$5,277
Insurance	$5,366
Wholesale, retail trade	$3,867
Hospitals	$3,299

Where Benefits Go

Of the $5,560 in average fringes per employe in 1979—

Social Security (employers' share)	$977
Insurance	$961
Pensions	$925
Paid vacations	$710
Paid rest, lunch periods	$539
Paid holidays	$462
Workers' compensation	$236
Unemployment compensation	$229
Profit sharing	$216
Paid sick leave	$187
Christmas bonuses, suggestion rewards	$ 64
Other benefits	$315

[illegible]

Exhibit J

FRINGE BENEFIT SURVEY

DIRECTIONS:

Background - Currently the District provides fringe benefits in the form of sick leave, other employee leaves, partial premium payment ($132 per year) for group health insurance, tax sheltered annuity program, income replacement insurance, deferred compensation program, and carpooling. We would like to have your input regarding other desirable fringe benefits. Please remember that these are only options that the District may possibly consider for the future. By completing this survey, you are not committing yourself to any benefit, only expressing the desirability of the benefit to you.

I. Please complete this section as follows: Select the THREE (3) benefits that you would like the District to offer and

- place a 1 by the benefit that you consider to be the most important to you;
- place a 2 by the benefit that you consider to be second in importance to you; and
- place a 3 by the benefit that you consider to be third in importance to you.

(DO NOT SELECT MORE THAN THREE BENEFITS)

% Selecting Benefit
as 1, 2, or 3

[illegible] A. Group health insurance-full premium paid by District for employee
[illegible] B. Group life insurance-full premium paid by District for employee
[illegible] C. Group dental insurance-full premium paid by District for employee
[illegible] D. Tuition reimbursement for graduate credit
[illegible] E. Child care assistance (District provided care or partial reimbursement for private care)
[illegible] F. Payment for unused sick leave at yearly intervals
[illegible] G. Vision care insurance-full premium paid by District for employee
[illegible] H. Retirement contribution for employee paid by District
[illegible] I. Transportation assistance (District provided or partial reimbursement)

II. Instead of additional fringe benefits (above those that the District currently offers), would you prefer to receive any compensation in the form of a salary increase only?

[illegible] Yes   71 No Response
[illegible] No

III. Are you

[illegible] married?   [illegible] male ?
[illegible] single?   [illegible] female?
[illegible] No Response

IV. Do you currently participate in a group health insurance plan provided by the employer of your spouse or a relative?

[illegible] Yes   [illegible] No   71 No Response

V. Do you have children under the age of 18 residing with you?

[illegible] Yes
[illegible] No

VI. Are you the sole support of your family?

[illegible] Yes
[illegible] No
[illegible] No Response

VII. What is your age?

[illegible] under 30   [illegible] 46-60
[illegible] 30-45   [illegible] Over 60

VIII. My position is (check one)

[illegible] professional personnel such as teacher, nurse, librarian, counselor, etc.
[illegible] teacher aide
[illegible] classified employees such as custodial personnel, bus driver, electricians, etc.
[illegible] clerical personnel

IX. A. Are you currently employed with the District in a (check one)

[illegible] 10 month position?
[illegible] 11 month position?
[illegible] 12 month position?

B. If you are not currently employed in a 12 month position, would you be interested in working 12 months if it were possible? (Do not answer this question if you are already employed by the District for 12 months.)

[illegible] Yes
[illegible] No
[illegible] Unsure

THANK YOU FOR YOUR ASSISTANCE. PLEASE FOLD, STAPLE, AND RETURN THE SURVEY SO THAT THE ADDRESS ON THE BACK OF THE SURVEY IS EVIDENT. PLEASE RETURN THIS SURVEY BY MONDAY, NOVEMBER 24, 1980.

Exhibit K

The Dallas Morning News Saturday, January 31, 1981

Texans think education

Poll shows state residents want quality schools

By STEWART DAVIS
Austin Bureau of The News

AUSTIN — Texas is more education-oriented than most people think, with 62 percent of a sample claiming they would pay more for quality schools, Houston pollster Lance V. Tarrance said Friday.

"Lots of people see education as the ticket, and especially in a work-ethic state like Texas, you need a ticket," he said.

Tarrance directs the polling firm that correctly predicted Republican Gov. Bill Clements' victory in 1978 and President Reagan's win in Texas in November. Tarrance did Clements' polling in 1978 and did polling for Republicans last year.

Tarrance's latest poll was conducted in December via telephone and asked the opinions of 1,000 Texans over the age of 18. Calls were made according to demographic data, and the error margin was estimated at plus or minus 3 percent. The cost was estimated at [illegible].

Other than "intense feeling" about education, Texans' attitudes are much like those nationwide, including concerns about inflation, crime, traffic congestion, energy and the environment, Tarrance said.

Texans feel more strongly about tax cuts than the national sample. Thirty-three percent of a Texas survey favored tax reductions, compared with 22 percent nationally.

But when questioned about what areas should be cut, most Texas respondents were reluctant to give up state services.

In fact, 66 percent of a survey said state taxes should be left alone.

Tarrance based his observations on a poll his firm is conducting for a

See TEXANS on Page 6A.

Texans dislike unions, poll says

Continued from Page 1A.

new quarterly, Texas Report.

The exclusive report, which costs $2,500 a year per subscriber, will attempt to identify and forecast trends in thinking about Texas issues.

"There's never been A-to-Z systematic public policy issue research in Texas," Tarrance said. "There's no chance to be hit by a Mack truck for a public policymaker, if this survey works."

Public support for education means more than higher pay for teachers, Tarrance said. The sample of 1,000 adults showed concerns about school crowding, low quality of education and other matters, he said.

Only 30 percent of the Texans surveyed approve of unions and union activities, while 43 percent disapprove and the remainder are neutral, Tarrance said. He said the bias against public employee unions with the right to strike, runs 60 percent to 31 percent. The bias against teacher unions, however, is less: 34 percent to 41 percent.

Tarrance said the priority on issues in the survey included:

- ● Education finance — 28 percent.
- ● State budget — 19 percent.
- ● Reduction of state employees — 14 percent.
- ● Legal wiretaps in drug cases — 10 percent.
- ● Highways — 10 percent.
- ● Initiative-referendum — 10 percent.

"This means that 10 percent would put top priority on initiative or highways or wiretapping, but 28 percent put priority on education finance," Tarrance said.

He said his poll of citizen sentiments should help public policymakers balance the tendency of democracy to cater to special interests.

Tarrance's survey, which will be repeated in April in an attempt to decipher trends, showed 15 percent of those surveyed were "extremely" interested in state government and its issues, 58 percent were "very" interested, 23 percent were "not very" interested and 3 percent weren't interested at all.

Exhibit 1

UH sociologist reports on study of HISD

Faculty desegregation mandates called cause of teacher turnover

BY NANCY STANCILL
Chronicle Staff

Unless court-ordered faculty desegregation mandates are somewhat relaxed, the Houston Independent School District will be faced with "a revolving door" of teacher turnover for years to come, a University of Houston sociologist says.

Dr. Anthony Gary Dworkin, an associate professor in the UH sociology department, has conducted continuing studies of teacher turnover in HISD for four years, focusing on the causes of teacher dissatisfaction.

Dworkin says his studies indicate the need for courts to re-examine the impact of faculty desegregation orders that "disregard the preferences of individual teachers" by assigning them to schools "based only on the color of their skin."

"This is causing a lot of problems for HISD and other urban districts," he says.

Dworkin's original study in 1977 surveyed 3,540 teachers of about 10,000 then teaching in the district. The sample, he says, roughly conformed with the age, experience and ethnic characteristics of the entire faculty.

Dworkin's initial study was commissioned by HISD. He has done further studies for his own independent research but has provided information from those studies to HISD.

What the initial study found, he says, was that the greatest influences on teacher dissatisfaction are a teacher's race, social class and attitude toward the teacher's assignment.

The study surveyed the teachers' "quitting behavior" and found that the majority of those who plan to quit are white, under 35, come from higher-class origins and are assigned to schools with student racial distributions they define as undesirable.

Dworkin said the studies indicate that "the vast majority of HISD teachers want to be assigned to a school where there is some sort of racial balance. Very few teachers want to be in a school where there is only one race of students."

The most dissatisfied teachers, he says, are white teachers assigned to mostly black and Hispanic schools and minority teachers assigned to predominantly white schools.

However, he says, court mandates make it likely that new teachers will be assigned in that manner to replace their racial counterparts who have become unhappy and resigned.

HISD operates under a 1970 court order called the Singleton Ratio, which requires that each school's faculty represent the racial and ethnic breakdown of the district's entire teaching staff for each level of schools.

The Singleton Ratio for HISD provides that each elementary school, for instance, have a faculty composed of 45 percent blacks, 5 percent Hispanics and 50 percent whites. The percentages enforced for middle and high schools are similar.

The Singleton Ratio is a formula devised in an Alabama court case in 1969. It was supposed to prevent large numbers of black teachers from being displaced by white teachers as districts desegregated. Dworkin said, however, that such a displacement never happened in HISD.

And while Dworkin says studies conducted for HISD by sociologists have shown that the race or ethnic group of the teacher makes no difference in a child's education, he says teachers are likely to want to quit if they are assigned to a school where the teacher's race is heavily in the minority.

HISD Superintendent Billy Reagan says he agrees "that the Singleton Ratio is the major contributing factor to teacher turnover. Its purpose was to desegregate faculty, not to be a destabilizing factor."

He says he hopes that "in the near future, we will get some leeway on it."

Dick Miller, president of the Congress of Houston Teachers, says the court-ordered ratio hurts the new teachers the most.

"In many cases, a brand new teacher is sent where he or she doesn't want to go. A teacher may want to leave a school, but will have to be replaced, generally by another new teacher," he says. "Many new teachers shop around, going to four or five other districts to see where they can get the best situation."

Richard Shaw, president of the Houston Federation of Teachers, disagrees that the Singleton Ratio is responsible for teacher turnover. He says, however, that teaching conditions in predominantly minority schools cause teachers to leave.

He said HISD makes little effort to lower class sizes where students are performing below grade level.

"Bad morale is the main reason for teacher turnover," he said.

Dworkin's followup studies indicate that 370 of the original 3,540 surveyed quit through 1979. Dworkin says he is awaiting statistics for 1980, but projects that another 250 have resigned by now. About 62 percent of the teachers who resigned in 1978-79 were white and most of the rest were black, he says.

Young, white, middle-class teachers are more likely to quit when they become dissatisfied because they perceive that they have more options for other careers, he says. Black, middle-class teachers also will quit when dissatisfied, but Dworkin says minorities still believe they have fewer options.

Least likely to quit, he says, are teachers who have come from working- or lower-class backgrounds of any ethnic group. Older teachers also believe they have more of an investment in teaching, Dworkin reports.

"In the 1940s and 1950s, teachers and managers of companies were perceived to be on the same status level, at the upper quarter of jobs," Dworkin says. "Now teaching is perceived to be at the top end of the lower half. Teacher status now compares with that of a stenographer, or possibly a door-to-door salesman.

"For working- or lower-class background teachers, their parents had to scrimp and save to send them to college," he says. "It's a lot harder for them to chuck it. On the other hand, the son or daughter of a professional expected to go to college and may perceive teaching as a step downward in status."

He says that other contributing factors in teacher turnover are the salary levels and the tendency of young women who in the past have filled teaching ranks but now seek other non-traditional careers.

Dworkin also expects class structure to play a somewhat disturbing role as urban school districts such as HISD become more racially and class segregated.

Such changes produce "a greater disparity between the beliefs and expectations of teachers and the student population they service. Such a disparity may serve only to exacerbate the high turnover rates and job dissatisfaction of urban public school teachers," he says.

Houston Chronicle   Sunday, February 8, 1981

Mr. HAWKINS. Well, thank you, Mr. Cox. I think you have made an excellent presentation.

There are several points about it, however, that I am a little—I won't say confused, because you certainly did not confuse anyone, but perhaps in need of some clarification.

It was difficult for me to follow you as to whether or not you were speaking for the Independent School District of Houston or whether or not you were speaking for vocational education. Perhaps that is the point that impresses me the most.

Now, for example, with respect to the chart which indicated the average grade equivalent, the composite scores in the district, was that districtwide, including the vocational education part or was that confined really to the section on vocational education about which most of your testimony was directed?

Mr. Cox. That is districtwide. That would not reflect those students in vocational education, because that would reflect the kids' grades in one to six.

What I am trying to demonstrate to you is that we are moving up with our test scores in the district as a result of any number of unique kinds of programs that we have going on—the second mile plan and fail safe—but as these kids' move from the sixth grade, they then will be moving into vocational programs. They will have a much better background where we will be able to train these kids in a highly technical area.

Mr. HAWKINS. To what do you credit this improvement; are you relating that to vocational education or to other programs in the school itself, vocational education being only a part of that?

Mr. Cox. I am relating this to the total discipline, not in particular vocational education, because at that grade level we are not involved with the training of our young people.

I am trying to demonstrate here that Houston is on the upward swing in terms of addressing the achievement level of youngsters, which will demonstrate as we move into grades 7, 8, 9 and 10—we will have a much better caliber of youngstger that we can provide vocational training. I thought you would be interested in the upward move that we are doing as it related to academics.

Mr. HAWKINS. Well, you indicated other variables in connection with the improvement scores, including the incentive pay for teachers. I think you mentioned others.

Mr. Cox. The second mile plan.

Mr. HAWKINS. With regard to the others: Did you in any way have difficulty, for example, with local teacher groups in terms of some of the programs which were instituted with respect to where the teachers could teach, whether or not the so-called differential in pay was something which was negotiated with teacher groups, was it accepted by them, and did you experience any difficulties in getting that type of accountability into the teaching group in the city of Houston?

I know that in some cities—Los Angeles in particular with which I am more familiar—there have been difficulties in trying to institute some of these very ideas that you have mentioned as if they were not opposed and as if they had been accepted without any great opposition.

Mr. Cox. We enjoy some of your pleasures, too, and that is not being able to satisfy everyone.

The answer to that question is "Yes." We did have some opposition from some of our teacher organizations, but all in all we had the greatest amount of support from the organizations in terms of our incentive pay, on terms of our second mile plan, where we were able to get our parents back into the school district, to buy in on the responsibility of educating our children, the fail safe policy I am talking about. So, yes, we always take all issues like this before our teacher organizations. They have an opportunity to come before our board of education and state their objections and their support or it.

There is some opposition to it from members of the staff, but the greatest majority of our teachers are in support of these incentive programs.

I might just comment, the attendance policy that was placed in the district for our students, I guess, is one of the greatest factors that improved our achievement level. A kid cannot learn unless he is there to be taught, so by us requiring that a student miss no more than 6 days in order to receive credit for a course has forced better attendance. We feel that if he is in the classroom, or she is in the classroom, we can teach the student and the student will learn.

Mr. Hawkins. Do you think that compulsory attendance idea was an important factor in the improvement of test scores?

Mr. Cox. Yes, sir; without a doubt.

Mr. Hawkins. I was interested in the fact that, unlike the population in general, in Houston the school population itself consisted almost, well, about three-fourths, almost three-fourths, of blacks and Hispanics, so that you really in a sense have a school district that is overwhelmingly minority, which is somewhat comparable to other cities, Los Angeles included. In spite of that, however, which sometimes is used as a justification for low performance, you have demonstrated that the test scores can be improved and, as a matter of fact, you have improved them. For that, I wish to commend you for an excellent job, which I guess demonstrates that blacks and Hispanics can be taught where there is a determination to teach them.

Mr. Cox. Thank you.

Mr. Hawkins. I think the Houston experience is something which is an example for many other areas to follow and I certainly hope that this committee will at some future time be able to visit Houston and to learn firsthand how you have been able to do a job that some of us have thrown up our arms at in other cities.

Mr. Cox. Mr. Chairman, we are very proud Texans, as you know. We would love for you or any member of the committee to come to Houston.

I did bring along one complete set of our magnet school programs, the fail safe, the incentive program, the second mile, and I think someone should have it there where you might want to go a little more in detail in terms of how we arrived at what we have presented to you this morning.

Mr. Hawkins. Let me yield at this time. I will try to get back to the two witnesses.

Mr. Goodling.

Mr. Goodling. Thank you, Mr. Chairman.

Mr. Cox, not because of vocational education, but you listed two categories and then you had a very small percentage attending the Houston public schools listed as others. Do you happen to have, and this is not for this purpose, but I voted against the tax credit idea the last time it was before us and I would be inclined to vote against it out of a concern that the poor students will become poorer educationally speaking if we go that route.

Would you happen to have the percentage of others who are living in Houston and are attending private schools, and if you do not have that, could you furnish this information?

Mr. Cox. I do not have that figure, but we have had a number of our citizens move out of the boundaries of the Houston district. I would guess it is probably in the neighborhood of 25 to 30 percent.

Mr. Goodling. I am specifically interested in the number that still live within the boundaries and are going to a private school, if you could get that figure and send it to me I would certainly appreciate it.

Mr. Cox. I certainly will do that.

Mr. Goodling. I would imagine there is a figure. I would like to see how big that figure is.

Mr. Cox. Yes. I certainly will get that for you.

Mr. Goodling. As compared to vocational education for other purposes.

Mr. Cox. Right.

Mr. Goodling. Again, not for vocational education, but do you have the prerogative of requesting doctor's excuses eventually in relation to the attendance program you talked about?

Mr. Cox. Yes. The attendance program carries a safety valve for the student, because the principal has been provided with the option to give or to accept the excuse if the excuse is legitimate. If a student had a doctor's appointment, then the principal has the right to waiver that absence, so that responsibility is left to the person.

Mr. Goodling. So as to the number of so-called legitimate excuses, does he then have the prerogative of requiring a doctor's excuse?

Mr. Cox. Yes, he has.

Mr. Goodling. Now, one other question to you. You talked about additional Federal funds for vocational chartered workshops. One of the things that I have always been concerned with is that we seem to have so many different programs going in so many different directions trying to serve the same area.

I always use as an illustration the fact that we subsidize the school lunch program, but then we have Meals on Wheels sent around for 25 miles even though the senior citizens are eating right next to the area of the local school.

Do you have, like in our area, OIS and the shelter workshops and these private and subsidized programs going on at the present time?

Mr. Cox. Yes; we have, and that is one of the keen interests I have. If we can take the youngsters, for example, between the ages of 14 and 21 and pattern our shelter workshops along the same lines with that of Goodwill and some of the other shelters we have with the adults, our youngsters then can move directly from among our ranks into industry and not have to be trained at that particular point.

Mr. GOODLING. You might even be able to do it less expensively by combining some of these efforts. I think that is what Dr. Peterson was driving at, a rethinking of how we could best use the money to get at what you are trying to get at, and there might be some kind of a combination.

Mr. COX. Certainly. We are amenable to that, because, as I have demonstrated with my advisory board, we are working with all institutions that are delivering these services, and we have no problem whatsoever working with business, industry, or any other group where we can pool our resources to come out with a quality product.

Mr. GOODLING. Dr. Ayala, I was impressed with your recommendations. In fact, I told my assistant here to make sure that the Secretary has an opportunity to see those, because I think you have a lot of good recommendations that, as I interpret their philosophy, could also fit in with their philosophical beliefs.

One question again which probably has nothing to do with vocational education other than to do with a possibility: I notice you are going to have five schools, and you are going to have a half-day plan and comprehensive high school for a half day.

Did you give any thought to having the entire program in your vocational school?

I led the fight not to have them split to make sure they had a comprehensive vocational education school back in my area. Did you give any thought to that, or is there some specific reason, first of all, why you separated them into five different training groups?

Dr. AYALA. This way a greater number of students, all the students citywide, can avail themselves of the facilities. If it was just a school, then students would not have that opportunity citywide.

Mr. GOODLING. Now, did you think of the possibility, though, of having the entire program at that school for those students rather than going back and forth?

Dr. AYALA. We felt that it is going to work better this way. One of our centers will be an all-day program, the Aero Space Center. But like I said before, we get greater use of the facility by having the students just come there for a half day and still maintain their academics at their home.

Mr. GOODLING. Then you flipflop? You will always have the school in session, and you rotate on that schedule?

Dr. AYALA. That's right.

Mr. GOODLING. Thank you very much.

Mr. HAWKINS. Could I ask the two witnesses to respond to an earlier question? What will be the impact of a 20-percent reduction in funds from the Federal Government?

Dr. Ayala, we can get to you first.

Dr. AYALA. Yes. I would like to respond to that in this way: We were known as the murder capital for a long time. Things have changed.

Mr. HAWKINS. You say, "murder"?

Dr. Ayala. Murder capital. Detroit was known as the murder capital.

Mr. Hawkins. I see.

Dr. Ayala. It is not that way now. Things have improved. I would hate to have that term put on us again, and if our funds were cut 20 percent, I hate to think what would happen. We need those funds to make things better in Detroit. We are a depressed area, and I don't even want to think in terms of what might happen if we had more students, more people out on the streets without jobs because they didn't have the skilled training to get jobs.

Mr. Hawkins. Do you think there is any way to adjust to it? Is there any internal adjustment to be made? Can you look to the State to pick up the slack or to the local government or can you, through consolidation or internal improvements of any kind, absorb the cut?

Dr. Ayala. It's bleak. The outlook is bleak. We need those Federal funds to help us.

Mr. Hawkins. Do you wish to answer, Mr. Cox?

Mr. Cox. Yes, Mr. Chairman.

Mr. Hawkins. Of course, you have done almost everything that has been suggested in terms of eliminating waste and meeting groups. If we can believe your testimony, and I do, you have already done a good job of getting the different groups together and eliminating waste and becoming more efficient. You have demonstrated excellent results in terms of improvement in test scores, and so forth.

Will the 20-percent reduction speed you on, then, or will it in any way retard this growth?

Mr. Cox. I would like to remind the Chair that we indicated that our greatest populations in the inner city are the disadvantaged and the handicapped, and something of this nature always worries me as it relates to that population.

The 20-percent reduction would without a doubt destroy many, many services that we are forced by educators to make available to those youngsters in order to bring them up to the level where they can be competent and productive citizens. It would definitely have an impact on us, and the greatest impact, in my opinion, would be with that special population, the many youngsters who are coming up from the country south of us and who are limited in English-speaking. We need to do some unique kinds of things to get them into the educational circle, and I am afraid it would destroy many of the fine programs that we have in existence now. I am afraid it would take away some of the basic kinds of things we need as additional services, helping them to learn to speak English, helping them to figure and to be able to read and compute. It would have an impact on us.

It would also have an impact on us in updating our equipment. I know in earlier testimony the question came up about business actually providing equipment for the school district. Businesses have donated equipment to us in the past, but it is most difficult to get the sophistication or the most sophisticated equipment that we will need and that is current with industry today. I have a feeling we will probably be donated many obsolete pieces of equipment that we wouldn't want in our laboratories.

We feel, in order to stay in tune and stay up with the march that is going on in industry today, we must be able to purchase equipment and have it in the classroom for our youngsters to use during their training.

Mr. **Hawkins**. Of course, the argument is made that you will be given the money and it is up to you to use it as you deem the most effective way to so use it. It is argued that if you want to use it on equipment, you can use it on equipment; if you want to use it on the English-speaking ability, you could do that; or you could use it on the disadvantaged or you could use it on the handicapped. This would be the argument. How do you offset that?

You indicated your belief that these would be the ones that would suffer. Why would they be the ones to suffer, rather than other groups, if the discretion as to the use of the moneys would be left to local school people? Would they necessarily be the ones who would suffer? Why do we conclude that they would?

Mr. **Cox**. We feel a total commitment to the total population in the Houston school district. We feel a responsiblity to educate the average kid, as well as those kids with special learning difficulties. It means you get in a situtation like this, in my opinion, where you cannot offer the special services, those special kinds of things that we know that population would have to have.

With a 20-percent reduction, some of those kinds of things the district just would not be able to offer. We still feel an obligation to that student who wants vocational training, who happens not to be in the special population. So we need to maintain some level of funding for those students, as well as do the very best we can for the students in the special population.

I am not implying to you we would not continue to provide the very best we could for the special population, but with some of those other kinds of things that we know we must do, it would almost prevent us from being able to do those things, and this is the thing that would trouble me.

Mr. **Hawkins**. Mr. Goodling, do you have something to add?

Mr. **Goodling**. Thank you, Mr. Chairman.

Dr. Ayala, I have just one note for you to take back to Detroit. We had a little convention out in your city, you may remember, a summer ago, and ever since that time I have wanted to write a letter to the editor and I have never gotten to it, so I will tell you and you can take the message back.

I don't know if it is usually the way the people in the area greet and treat those who come to visit or whether somebody said, "This is the way it is, and that is the way it will be," but I have never been any place where they made me feel so at home, whether it was the bus boy or the telephone operator or the policeman—everyone. It was a great experience.

I go to New York City, and I always feel if they are making me feel they are doing me a favor by taking my money. I didn't get that feeling in Detroit at all. I got the feeling they wanted my money, but they wanted to perform to get my money. So I wanted to give you that message.

Dr. **Ayala**. Thank you. I appreciate it.

Mr. Hawkins. We will take your money in Los Angeles, too, if you come there.

Again the subcommittee is very thankful to the witnesses, and without any additional questions, the hearing is adjourned.

[Whereupon, at 11:40 a.m., the subcommittee was adjourned.]

[Material submitted for the record follows:]

March 10, 1981

Hon. Carl D. Perkins
Chairman, Committee on Education and Labor
Congress of the United States
House of Representatives
2181 Rayburn House Office Building
Washington, D.C. 20515

Dear Chairman Perkins:

I regret not being able to participate in person in the Subcommittee's hearings on the reauthorization of the Vocational Education act. I will, however, offer comments (testimony) on the points expressed in your letter of February 27, 1981.

Statement made by:

Louie M. Roberts, Assistant Principal, Miami Northwestern Senior High School, 7007 N.W. 12th Avenue, Miami, Florida 33150, 305-636-0991

Residence: 19625 N.W. 5th Place, Miami, Florida 33169

Present Employer:

Dade County (Florida) Public Schools
Miami, Florida 33132

Formal Education:

MS Education, Florida International University, 1975
BS Education, Florida International University, 1973

Other Training:

Underwood Corp., 1951-1958 (interrupted for military)
National Cash Register, 1960
Remmington Rand, 1961
Olivetti Corp, 1963
U.S. Army, Quartermaster Corps, 1953-1955
Brunswick Corp, 1969

Hon. Carl Perkins March 10, 1981

Urban Schools employed (Dade County, Florida)

3 years	Hialeah High School	90% latin 10% other
2 years	Miami Central High School	60% black 30% white 10% latin
Part time	Miami Dorsey Skill Center	80% black 10% white 10% latin
9 years	Lindsey Hopkins Technical Education Center	40% black 20% white 30% latin 10% Haitian
2 years	Miami Northwestern High School	100% black

I am attaching a series of statements which I feel are significant in the operation of vocational programs in urban settings. These statements reflect my 16 years of experience "on the firing line" as a teacher, department head, supervisor and assistant principal. I pride myself in getting things done, using the system to provide for my programs, teachers, and most importantly, for the students.

I hope these statements will be of assistance to you and your committee in the performance of your task.

Sincerely,

L. M. Roberts

SPECIAL PROBLEMS OF MOUNTING VOCATIONAL PROGRAMS IN URBAN AREAS. (INCLUDING SPECIAL NEEDS OF STUDENTS IN TARGET AREAS AND SUGGESTIONS FOR IMPROVING FEDERAL VOCATIONAL EDUCATION LEGISLATION.

FORMAT

Under sections identified by roman numerals, I have stated narratively the status of condition in Dade County's urban vocational schools.

Under "A" of each section, I will address what I feel are the special needs of these sections (targets).

Under "B" of each section, I will make suggestions for improving Federal vocational education legislation as it pertains to that particular section target.

I. POPULATION:

For the most part, students both high school and adults attending urban vocational centers both part time and full time are grossly deficient in basic skills. I estimate that the average student reads at about the 4-5 grade level and does math at approximately the 6-8 grade level. In addition, simple survival skills such as reading a ruler, knowing how many ounces in a pound, inches in a yard etc, are almost non-existent. Students coming from urban junior high schools (9th grade (14/15 years of age) are generally functioning at 3rd grade reading and math levels. For this reason, vocational programs are hard pressed to offer curriculum which requires extensive reading or the performance of math above the very basic level.

Adult populations, in addition to their very limited basic skills, usually possess other handicaps. Among these are one or more of the following: (1) Limited use and/or understanding of the english language, (2) visual or sight deficiencies, (3) permanent injuries to their bodies, i.e. back problems, leg or knee problem, lacking total use of arms and/or fingers, (4) habitual criminal tendencies, making trouble and/or harrassing the teacher or students, (5) obvious mental conditions ranging from extreme moodiness to hyperactivity, (6) multiplicity of personal problems ranging from dependent children to divorces, aged parents or grandparents and various other kinds of problems which befall undereducated-undertrained people, (7) the "ride the program syndrome"--those who show up on the rolls of every program in the community, generally under different identification but always there drawing the check and doing just enough to remain in good standing to receive the monetary rewards. When their maximum time is reached, off they go to another program and another free ride.

A. Special Needs of the Population

Obviously, those students coming from the Junior High school system deficient in basic skills are no fault of the vocational programs. However, we are forced to work with their deficiencies. Therefore, there is a need for:

1. Special training for urban vocational teachers to work with their low level students.
2. Special training is also needed for those teachers of deficient adults. This is not the same kind of training, but very special techniques for low achieving adults.
3. Programs of ESOL (English for Speckers of Other Languages) made part of the vocational program, using books/handouts taken from trade publications and information related to the specific trade.
4. Guidance Counselors who are trained to identify prospective students with physical/mental defects.

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5. Re-institute basic screening of prospective students to attempt to determine probable success and also to recommend basic skills/ESOL programs which will increase the likelihood of success for the adult population.
6. Institute laws which will punish those who "ride the system" or those who abuse the privileges of attending vocational programs and receive payment from the government.

B. Suggestions for Improving Federal Vocational Education Legislation

1. I would like to see licensing of teachers, also required regular counseling on the techniques of teaching and dealing with low achieving vocational students. This license would be required by the U.S. Government and those schools not in compliance will be subject to non-funding.
2. A concentrated effort ot identify and to prosecute those offenders who bleed the system, take up space in the classroom and perhaps prevent a serious student from attendig the adult vocational program. It is felt that punishment of these offenders will do a great deal of good by removing them from the rolls and allowing "fresh blood" to get involved.
3. Funding must be continued and improved to provide trained counselors and guidance personnel to assist both youth and adults find their way. Also, a system of identifying physical/mental problems should be given some consideration due to the great amount of time and money expended in attempting to serve these kinds of students only to eventually discover that they are unemployable. There is a great need to re-instate minimum requirement testing, not to eliminate students, but to better serve both those in

the program (by reducing disruptions) and the one's attempting to get into the program by establishing probability of success and placement.

II. SECURITY

Equipment and supplies for vocational programs are prime targets for theft, vandalism and mis-appropriation. Frequently long awaited equipment is stolen the night after the delivery. Seemingly, word gets out to those who deal in equipment when the delivery is due and where it is stored. New equipment in original crates or cartons usually has no property control markings or ownership decals. Once, lost, recovery is extremely rare. Prime targets are typewriters and other business equipment, automotive repair tools, jacks, welders, tune-up equipment, air conditioning test equipment, air compressors, etc. Electronic equipment of all types, expecially the latest "transistorized" miniature kinds of test equipment is stolen constantly. For the most part, any tool or piece of equipment used in any trade from building and construction to computer programing and from typing and bookkeeping to practical nursing, can be sold on the street. As a result, instructional equipment becomes a target for theftin our urban schools which are all located in high crime areas in our communities.

A. Special Needs for Security

The local system is finally, after years of accepting the frequent acts of burglary and vandalism or "just life ind the big city", beginning to do something about the problem. After years of working with vocational programs in urban centers, I feel that programs need the following consideration.

1. Special funding be provided to aid the vocational schools in high crime urban areas.
2. Installation of durable, attractive security screens over windows, skylites, and outdoor storage areas.
3. Installation of closed circuit TV for 24 hour/7 day monitoring of all vocational laboratory areas.
4. That "live-in" security personnel be considered.
5. That silent alarm systems be installed in all areas, not only shops and offices. Vandalism in classrooms, usually fires and total destruction of furniture and fixtures , disrupts classes for weeks at a time.
6. That restroom and other facilities be removated and updated to reduce maintenance of "old-fashioned" facilities which are highly susceptible to vandalism.
7. That a special force of security personnel be trained on the lay-out of all urban schools in order to systematically capture intruders. At present, local police responding to an alarm from the schools do a simple walk thru. Vandals inside the building are relatively free from detections and capture.

B. Suggestions for Improving Federal Vocational Education Legislation for Security.

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1. That an extensive study be done on causes, effects and remedies of vandalism and burglary in urban vocational facilities.
2. That "minimum standards" of security be developed. School systems receiving federal or state funds must abide by these security standards or funding woul be withheld. This kind of plan would prevent urban schools from putting expensive equipment into facilities which offer little or no protection. This is one of or major probems. Vocational shops are usually the most remote on the campus, and by their nature, the most accessible; overhead doors, ventilator shafts, exhaust fans, outdoor storage, etc. Frequently combustible materials from vocational shops are stolen to "torch" other areas of the school.
3. That laws be enacted which will make it a serious crime to burglarize a school and to sell school property on the street; much like laws about burglarizing a post office or other "government facility". Also, mandatory sentence must be imposed and in the cases of minors, retribution by the parents must beincluded.
4. That programs in urban areas receive supplementary funding to offset high costs of vandalism and theft by burglary.
5. Occasionally, carelessness on the part of the teacheror other personnel accounts for considerable loss by the urban school. (Doors or facilities left unlocked or valuable equipment being left unattended.)

   To deter these irresponsible acts, a comprehensivereport and investigation should be required by funding agencies in all cases where this kind of loss occurs. A "statgment of charge"* type of policy should be instituted in cases where carelessness accounted for loss or destruction of major vocational equipment or facilities.

*Statement of Charge is a military procedure which requires the person found guilty of neglect in the loss or destruction of government equipment or facilities to make restitution.

III. Curriculum

Perhaps this is the one bright spot in vocational programs in urban settings. Generally, systems develop their own or can readily purchase curriculum (software) tests, job sheets, assignment sheets, disassembly and reassemly and adjustment procedure, etc.

Due to usually low reading skills, software is prepared by the teacher or purchaed written at the level of the target population. These materials of necessity must be primarly pictures and simple "exploded" drawings and the teacher lectures and students write in (in their own words) simple notes, arrows or other graphic codes which will assist them later when they will be required to perform the tasks. A great deal of effort and expense has be expended in the local translation of software into various languages such as Spanish, Hatian, Creole, French, Yiddish and Vietnamese.

Generally, curriculum offers little problem in the urban vocational setting. Aside from the expense of development, purchase or reproduction, software is readily available and of good quality.

A. Special Needs of Curriculum

For the most part, curriculum in urban centers is adequate. Many teachers over the years have out of necessity developed a variety of curriculum to meet the special needs of their students. In many cases, trades and trade technology has not drastically changed over the years and as a result, this kind of curriculum stays relevant. In other trades with rapidly advancing technology, some needs are

1. Frequent upgrading of teachers of rapidly advancing trades is definitely needed. Some of these are auto mechanics, health occupations and electronics, to name a few.
2. Colleges and University courses in the "nuts and bolts" of teaching underprivileged youth and adults.
3. Closer cooperation with industry and business to ascertain trends, needs and phase-outs of vocational programs.

B. Suggestions for Improving Federal Vocational Education Legislation for Curriculum.

1. That a monitoring agency be required to constantly review vocational curriculum to make sure that schools meet and acceptable "minimum standard". Industry could assist in developing these minimum standards and schools would be required to provide students with the expected skills. At present, it is common for a student to spend two years in a program and not be employable by local industry standards.
2. That a funding formula be instituted in vocational programs which will provide for paid release time for teachers. This funding would include travel, per diem expense and if during school time funds for an effective substitute be provided.
   These paid workshops would be provided by industry and held in actual industrial settings, giving the teachers a taste of what is happening in the latest state of the art.
3. That strict guidelines be placed on this funding which would prevent monies being spent on "plush" trips for non-teaching staff.
4. Industry should and must assist vocational curriculum development. Perhaps a tax credit incentive could be considered for those companies willing to cooperate.

IV. FACILITIES

Unless a community is fortunate enough to have vocational schools in urban renewal projects, (and in Miami we are not) for the most part, urban vocational schools are horribly inadequte. While great sums of money have been spent on refurbishing and renovation, students in urban settings destroy, damage, abuse, steal fixtures from, and generally deface their buildings. In order that restrooms be maintained in sanitry condition, security personnel must be posted full time. Students are notorious for jimmying locks, loosening windows and vents for later unauthorized access for theft and vandalism. Burglar alarms are systematically disarmed or bypassed. Time and expense required for constant patrolling and maintenance is astronomical.

Frequently, equipment is good and realistic but the facility is inadequate thus rendering the program less effective, difficult to maintain and generally does a poor job due to the restrictive nature of the phycial plant.

A. Special Needs of Facilities

In all urban vocational programs in Dade County, facilities are in generally poor condition. Reasons are money, however, vandalism plays a major roll in this problem. Also, all Dade County vocational urban schools are old and original programs are in substandard (by today's standards) facilities or were added later into poorly planned and/or substandard facilities.

The state has gone to great time and expense to develop standard criteria for vocational programs. Unfortunately, these standards apply to new facilities being planned and not to existing programs.

1. Minimum standards should be applied across-the-board. What is good for new should be good for existing urban schools.
2. If urban school land is not sufficient, additional land must be acquired.
3. When new equipment is funded, all installation cost must be included also; if a modification of physical facility is needed to accommodate the equipment, funds must be provided.

B. Suggestions for Improving Federal Vocational Education Legislation FOR Facilities

1. That funding formulas be provided for the renovation of substandard facilities in urban schools.
2. That local school systems be mandated to provide facilities which meet or exceed the criteria for vocational facilities.
3. That a monitoring agency be established to look into the gross neglect of urban vocational school program facilities and that "minimum standards" according to industry input be mandatory.

V. EQUIPMENT

For the most part, equipment is generally in good supply. Numerous projects are written and funded through a variety of sources. While it is found to be easier to buy new equipment as opposed to replacement of old or obsolete equipment, this does not always pose a problem. We frequently are not able to purchase in the quantities felt necessary, however, we are at least afforded the opportunity to purchase representative pieces for systematic instruction. One other fallacy to the purchase of new equipment is not being able to purchase a stock of supplies along with the piece of equipment. Also, usually cost of equipment does not include the installation and given a "tight" local maintenance budget, new equipment in need of installation might stand idle in original crates for as much as several years.

As outlined in my Section II titled "Security", equipment is a prime target for theft, vandalism and mis-appropriation and is for these reasons difficult to retain and maintain.

A. Special Needs for Equipment

While equipment is generally in good supply, there are some problems which constantly plague urban vocational programs.

1. New equipment is usually more available than repair of existing equipment. For example, a school was recently funded $14,000 for the purchase of a frame aligning machine because the old one was in need of repair. Unfortunately, there are no funds for the installation of the new machine.
2. Provide guidelines for systems to guarantee repair of equipment funds.
3. Require school systems to provide reasonable security on expensive vocational equipment.

B. Suggestions for Improving Federal Vocational Education Legislation for Equipment

1. Spearhead legislation to require mandatory jail sentences for the sale and possession of school equipment.
2. Provide funding formulas to be associated with equipment to cover cost of installation and in some instances, maintenance (as in the care of extremely expensive equipment i.e. computers, medical test equipment, radio transmitters, TV cameras, etc).
3. Require rigid guidelines for security and maintenance of federally funded equipment and comprehensive reporting of those lost or serious (due to vandalism) damage to such equipment.

4. Cooperate with industry in determining the feasibility of specific kinds of equipment in certain areas (i.e. farm tractor mechanics in an urban setting).

VI. SUPPLIES

Instructional supplies are generally available in sufficient quanity to operate meaningful programs. Management of these supplies is usually the responsibility of the individual teacher who must exercise great care in issuing only controlled amounts for use in production or practice situations. It is only when a teacher fails to maintain control or in the event there is a breakin and supplies are stolen or vandalized that the program gets into trouble. Sophiscated supplies and supplies for specific kinds of equipment and/or supplies for machines of foreign manufacture do cause occasional problems for a number of reasons. For the most part, baring physical crisis in the school system, supplies are available in limited quantities.

VII. COUNSELING SERVICES

With few exceptions, counseling and guidance service for urban vocational programs is adequate. Teachers, in an attempt to maintain good class loads, frequently recruit their own students. Career Days, Vocational Education Days and other similar kinds of programs help in spreading the word on vocational education. From time to time, the system will provide funds for the development of brochures and/or other publications which greatly assist the guidance department in providing information. Recently, a computerized program is available to all students which offers information about individual vocational/career courses. Printed out course descriptions directly from a terminal located at the school can be had by simply pushing a few keys on a keyboard.

Occupational specialists and Placement specialists offer constant job placement and job information to students in vocational programs. Advisory groups and private industry frequently cooperate with the school in making information about job requirements and career opportunities available at school assemblies.

A. Special Needs for Counseling Services

This area is in relatively good shape, I would only hope that attention to the importance of vocational and carest guidance is continued.

1. Needed are more counselors. At present, the counselor ratio in urban vocational schools is approximately 450 to 1. This kind of load does not allow the counselor a reasonable amount of contact time with his/hr students.
2. Industry visitation by counselor on a periodic bases to keep in tune with trends and job requirements.
3. More printed literature to hand to the interested student written in terms and at a level the prospective student understands.

B. Suggestions for Improving Federal Vocational Education Legislation for Counselors.

1. That a funding formula be determined to provide for additional vocational guidance personnel.
2. That assistance be given to the development of program brochures and job information literature perhaps with the aid of industry.
3. That counselors be required to visit industry and/or attend workshops on counseling underprivilidged urban youthand adults. This should be in the form of a license or certification renewable only after documented planned inservice training.

VIII. TEACHERS

Vocational educators have for years been the strength behind the success of vocational programs. In years past, these teachers who are actually tradesmen, not educators worked tirelessly to develop employable youth and adults. In recent years, perhaps due to salaries of vocational teachers not keeping pace with industry; or perhaps due to the problems with disciplin in our schools (or a combinition of these factors) todays vocational educators do not seem to satisfy the needs of students. The trend has been away from individual performance to unionism and doing only what is written in the union contract. In many cases, urban vocational schools have trouble attracting quality trades men as teachers and as a result, we frequently have to settle for second rate or mediocre personnel. As a result, students are not served, programs do not function smoothly and drop out rate soar. The only one benefiting from the schools are the teachers who stay on year after year, drawing a reasonable salary and having only 4 or 5 students in class. Other vocational programs in more afluent areas or in blue collar areas generate sufficient funds on a system wide basis to subsidise the poorly attended urban programs.

Many of our teachers in urban settings are in their late 50's and up to their middle 60's in age, and only able to function because of the small class loads and usually not demanding urban students. These teachers put in their five contact hours per pay oblivious to the needs of their students.

Recent state legislation allows the teacher to stay on the job with no age limitation. Granted, there should be no age discrimination, however there must be a plan to include minimum performance standards for teachers.

Vocational teachers are allowed to teach their subjects based only on their trade experiences as credentials. Quite often, the best tradesmen are not the best teachers. The state certification requires the teacher to attend only 21 semester hours of college and prove a minimum of 6 yrars of trade experience to get a teaching license. More often than not, in order to get a teacher into the urban program, certification requirements are not followed to the letter of the law. Recent laws now prohibit teachers from being finger printed, photographed and "checked out" through previously used methods. As a result, many undesireables are coming into the teaching profession and finding urban voc ational programs a lucrative place from which to "operate".

In addition, recently, demands have been placed upon the system to provide vocational training in various languages other than english. These demands have necessitated the hiring of bi-lingual teachers who more often than not are impossible to certify under present state guidelines; therefore, frequently bi-lingual teachers are hired accepting their very suspicious trade reccommendations. One favorite trick is to show up with a Masters Degree from the University of Habana with the "ink still wet", knowing that verification of the document is impossible.

An additional practice which adds to the poor quality of Urban Vocational Program Teachers if the requirement to hire on a quota basis with the faculty ethnically balanced with the student body. This is a ludicrous practice and more often then not results in the forced hiring of a not-so-qualified teacher because he/she is white-black or latin. This forced practice has perhaps led to the decline of quality in our urban programs as much as all other previously mentioned personnel problems. Union organizers are quick to sieze upon the muddled state of personnel policies. They immediately recruit these semi-qualified "teachers", providing "protection" from pressures from administrators attempting to clean up the programs. Absenteeism from htis kind of underqualified teacher is astromically high due to the teacher feeling little or no responsibility to his students or the program. As an administrator, I am not allowed to require proof of illness, only the word of the union teacher. As a result, friday and monday absenteeism is rampant.

A. **Special Needs for Teachers**

In order to attract more qualified teachers into the urban settings, special considerations must be given to personnel willing to work in this unique setting.

1. A supplement should be paid to urban vocational teachers who perform up to the standards of program guidelines.
2. Special training and licensing of urban teachers is desparately needed.
3. Place a cap or limit both high and low and require teachers to maintain these lev els.
4. Require teachers to pass a teacher test periodically. This test could be drawn up by industry to meet industry requirements.
5. Require bi-lingual teachers with questionable credentials to pass a proof-of-trade competency exam prior to hiring.
6. Cease the ridiculous practice of hiring to quotas.

B. **Suggestions for Improving Federal Vocational Education Legislation for Teachers.**

1. That federal legislation be passed to certify teachers of urban vocational programs.
   Certification must be renewed on a periodic basis.
   Industry can offer input to establish acceptable trade standards.
2. Funding of programs should be based upon individual programs not on an areawide basis allowing for very light loads in urban schools and overloads in other areas.
3. That funding be based on documented placement records.
4. That teachers be terminated or re-trained if their placement falls below established program guidelines.

3/16/81

HEARINGS ON REAUTHORIZATION OF THE VOCATIONAL EDUCATION ACT OF 1963

Part 2: Urban and Rural Vocational Education

TUESDAY, MARCH 3, 1981

House of Representatives,
Subcommittee on Elementary, Secondary,
and Vocational Education,
Committee on Education and Labor,
Washington, D.C.

The subcommittee met, pursuant to call, at 9:30 a.m., in room 2175, Rayburn House Office Building, Hon. Carl D. Perkins (chairman of the subcommittee) presiding.

Members present: Representatives Perkins, Jeffords, and Craig.

Staff present: John F. Jennings, counsel; Richard DiEugenio, minority legislative associate.

Chairman Perkins. The hearing will come to order.

The Subcommittee on Elementary, Secondary, and Vocational Education is continuing hearings this morning on the reauthorization of the Vocational Education Act.

Today we will continue our examination of vocational programs in different geographic settings. Last Thursday we looked at vocational education in urban areas. This morning we will focus on vocational education in rural areas.

I feel it is important to focus on rural areas because these regions often have special needs and problems. However, I want to make clear that by looking at urban and rural vocational education, we do not intend to overlook the needs of small town or suburban areas. We have already heard from, and will continue to hear from, representatives of these types of localities during the course of our reauthorization hearings.

I want to welcome my colleague, Mr. Wes Watkins of Oklahoma. Without objection, your prepared statements will be inserted in the record. You may proceed as you wish.

STATEMENT OF HON. WES WATKINS, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OKLAHOMA

Mr. Watkins. I would like to ask permission to have my entire testimony in the record and want to thank you for your concern for young people and their education. I want to acknowledge to all the people here, your genuine concern and I want you to know of my own personal appreciation and concern for young people in rural America.

I am a product of vocational education. I am very proud to be a product of vocational education. I am also a product of rural America. Last week one of my fellow committee members of the Appropriations Committee turned to me and said, "Watkins, you are a rural radical." I guess I accept that particular title because I am very happy to be a person who feels strongly about the rural areas of this country.

Mr. Chairman, when I graduated from a small high school in Bennington, Okla., my mama said to me, "Son, I want you to go get a college education and go get a job." The reason mama told me to go get a college education and get a job is because there weren't any jobs back home. She thought she was giving me the soundest and best advice she could—to go find a job somewhere else.

Many of our rural areas in this country have not been able to revitalize since pre-World War II, since John Steinbeck wrote the book, "The Grapes of Wrath." That book told of people migrating out of rural America in search of a job. If you turn to the pages of history you will see that this was the largest movement of people in the history of our country.

In the late forties, while this migration was still occurring, our country saw fit to write the Marshall plan to rebuild Europe. This was good.

Twenty years later, in the midsixties, riots were burning down some of our urban centers of the country. Our country saw fit to write the massive urban renewal program, which was right and good for our people.

But, Mr. Chairman, our country has not seen fit to write the program to rebuild, revitalize, and reconstruct many of the chronic underemployed and unemployed areas in the Ozarks region of this country.

Of the 255 poorest counties in the Nation in 1975, 237 were located in Southern States. The average per capita income was less than $3,500 in 212 of these counties. In some of the counties I represent in southern Oklahoma, 68 percent of the people have left in the last 50 years.

Agriculture is still the dominant industry in many of the rural communities. Many counties I serve which have had this outmigration don't have a single manufacturing job for our people.

Twenty percent of all farmers had income below the poverty level in 1975; 18 percent of all farmers earned less than $5,000 in 1977, and 39 percent earned less than $10,000 in 1977.

Illiteracy is higher in rural areas than in urban areas. In rural areas in 1979, 64 percent of the whites and 33 percent of the blacks graduated from high school, less than our city cousins who had 70 percent of the whites and 40 percent of the blacks graduate from high school.

As I have indicated to several of our colleagues, poverty seems to be hidden in the back roads of this country as compared to the eyesores of the cities.

My parents went to California and back in the Okie-Arkie movement of the 1940's. I did not know we were living in poverty, because we moved to an apartment complex that had running water. We thought we were moving uptown. The problems of the

1940's still exist in rural America, and I feel we can help alleviate them through an effective vocational education program.

One of the things we are trying to do in my area of the country is to instill a new thrust and new enthusiasm in entrepreneurship—the starting of new businesses and industries.

I am asking my colleagues in vocational education to assist this thrust in entrepreneurship, and bring a new dimension and a new mandate to the vocational education arena. I am actually asking if our people in vocational education would accept some new creative thinking.

As we all know, Mr. Chairman, productivity is at an alltime low. No new technologies are coming along. And industries are expanding into foreign countries rather than into the rural, depressed areas of our own country where they could help rebuild a sound economic base to benefit our people and our Nation.

I have called on vocational educators in Oklahoma to not only provide the skilled people as we work for these ends, but also to create new innovative jobs in rural areas, and to provide the necessary management.

I would like to place this setting for the committee, if I may. We have had incentives for industries to expand into our cities for quite some time. But, Mr. Chairman, all my adult life, I have tried to get industry to come to the rural, depressed areas of Oklahoma. They won't come to a small community with windows boarded up and grass growing in the streets. We are trying, through the assistance of vocational education, to encourage entrepreneurship for new product development, giving birth to new industry. We do this because we love that area; we want to stay, to live and raise our families in that area.

Working with these ideas, we are trying to instill social conscience in some of our companies to search for vendors in our rural areas. We are trying to build employment because we have 15 to 18 percent of our people unemployed in that area—chronic unemployment.

I am asking this committee to provide equity and fairness in the vocational education programs for the rural depressed areas of this great country. I am also indicating that we have to strengthen, not weaken, the occupational disciplines, whether they be industrial education or business, or agricultural or vocational education.

I indicated a moment ago that I was a product of vocational education. I am a product of vocational agriculture and the Future Farmers of America organization. There is no question in my mind that I wouldn't be seated here today, Mr. Chairman, if it hadn't been for those organizations. They have been a catalyst and moving force for many, many people, including myself.

Chairman Perkins. Let me interrupt for a moment.

Mr. Watkins, when I came here, I had a tremendous unemployment rate. It took many years to develop good vocational programs in my region. I would like to ask you if you think it makes sense to cut vocational education back at least 20 percent, and maybe more after the President's budget comes up on the 10th, especially since President Reagan is talking about reviving industry and business in the Nation.

Do you feel that the States and the local governments will be able to pick up these extra dollars to put in the training programs if this cutback is permitted to take place? Do you feel that we will be able to provide skilled workers for industry, as President Reagan was talking about?

Mr. WATKINS. Mr. Chairman, I don't understand the President's rationale. I don't see how we can justify the proposed reductions in rural America unless we are going to cut that area of the country off completely.

I might add that someone stated to me yesterday that they were not going to put programs out in rural areas because the people aren't there. I don't understand that rationale and that kind of cold heartedness. I think vocational education is one acceptable, very credible group that is helping to solve the problems in those communities, working day and night. Vocational education is positively affecting the sons and daughters of many of our people, and as a result, I think it behooves us to analyze the proposed cutbacks very carefully.

Not only do I think we should strengthen, not weaken, our occupational disciplines, but we should maintain a strong youth program with it. Without question, youth programs, such as the Future Farmers of America and DECA, are the programs that provide the inspiration for young people to achieve and do things with their lives.

I know several Members of Congress share that particular view with me. Mr. Chairman, what I am actually saying is that I feel the committee should give special consideration or weight to factors that would allow extremely rural States to receive necessary additional funds for vocational education.

I understand the President is wanting to make cuts, but I would hope that this committee would give special consideration to areas of rural geographic isolationism. Many of our areas are isolated. For example, the people of Oklahoma City have the distinction—and I am proud of them—of being the most fully employed citizens in the United States. I am also proud of the fact that the sister city in Oklahoma, Tulsa, is the second most fully employed city in the United States. But, just 60 miles south of those two cities happens to be the area I represent, and it happens to be one of the most unemployed areas of the country.

One of the unique purposes of the proposed legislation should be to improve the quality of vocational education by providing resources for literary and technical skills and to make provisions for capacity building grants for rural areas.

Another proposed purpose of the vocational education reauthorization which I would like to place a special emphasis on is that entrepreneurship should be an integral part of vocational legislation.

Mr. Chairman, you were there when I spoke in New Orleans earlier this year to the American Vocational Association.

I posed some questions to people there concerning vocational education. Who is responsible for developing entrepreneurs? Our major universities have not succeeded. The Fortune 500 have not succeeded. I truly believe we should make entrepreneurship part of the vocational education discipline, and I am trying to work on a very practical level with vocational educators to encourage this thrust. Two-thirds of the inventions in this country come not from the Fortune 500 or big universities, but from small farmers and businessmen. Crisis is the mother of invention, and these people are out on the firing line dealing with crisis every day.

Student organizations and occupational disciplines should receive visibility in the vocational legislation. These have been shoved to the back burner.

There should be a separate title in this legislation that focuses on youth education and training in our Nation.

Mr. Chairman, in the interest of time, I will conclude my remarks at this time. I wanted to come this morning to express my sincere feeling about vocational education. Sometimes we have all felt this was an ad hoc part of education. But I truly believe, as a product of vocational education, that this should become a major thrust in this Nation. Vocational education can be of great assistance to the President's goal of increasing productivity. He also wants to increase technology being utilized in this country and I think vocational education can help by encouraging and supporting entrepreneurship programs.

In the best interests of our country, we should try to solve the problems of the rural depressed. Vocational education can play a major role in that effort, and I ask for your support in that regard. I appreciate your kindness in listening to me and I would appreciate anything the committee might be able to do to be of assistance to rural America.

[The complete statement of Wes Watkins follows:]

Prepared Statement of Hon. Wes Watkins, a Representative in Congress From the State of Oklahoma

Mr. Chairman, thank you for allowing me this opportunity to appear before your subcommittee to express my support of the reauthorization and extension of the Vocational Education Act.

As you know, I have long been a strong supporter of vocational education, having helped establish vocational education programs that work so well in my area of my home state of Oklahoma. I would like to direct my testimony today to the special needs of educational systems in the rural areas of our nation, pointing out the significant role that vocational education plays in the delivery of appropriate education to our rual population.

RURAL AMERICA

Today our rural population faces many problems. Today our rural citizens are not receiving equity and fairness with many of the programs designed to help the less fortunate. I believe that many of the problems facing rural America, as well as some of our urban areas, can be alleviated through the implementation and support of a sound vocational educational system.

Rural communities still lack employment opportunities for our young. A large part of our rural population must work at two jobs just to make a living. I remember when I graduated from high school and my momma said to me, "Son, go get a college education, and go get you a job." This is as relevant today as it was in the 1950's. Information indicates that the rural sectors of our country still have a lower proportion of the better jobs. Of the 255 poorest counties in the nation in 1975, 237 were located in the southern states. The average per capita income was less than $3,500 in 212 of these counties.

Agriculture is still the predominant industry for our rural communities. However, farmers are also disproportionately poor; 20 percent had income below poverty in 1975. Eighteen percent of all farmers earned less than $5,000, and 89 percent earned less than $10,000 in 1977.

Agriculture today has grown beyond just production agriculture. Agri-business is as an important component to our agriculture industry as well as the mechanical and natural resource facets.

Family farms in many instances are used to supplement family income. Conversely, many farm families must obtain jobs off the farms to subsidize family income to survive.

Many industries have migrated to rural communities to secure low-wage and unemployed individuals for their workforce. This has resulted in many of our rural communities being dominated by a single industry whose ties to the community are often artificial. These industries have contributed very little to raising the income levels of our rural population.

One of the most damaging occurrences taking place in our rural communities has been, and still is, the out-migration of our educated youth. This has stripped rural communities of one of their prime resources. This leaves the communities with high proportions of unskilled workers, resulting in the inability to secure high technology business and industry with higher wage rates.

Illiteracy is higher in rural areas than in urban areas. In 1979, sixty-four percent of non-metro whites and 33 percent of blacks age 25 years and over graduated from high schools, while 73 percent of metro whites and 54 percent of blacks graduated from high school.

Rural communities have different geographic characteristics, ranging from cultural differences to employment opportunities. Regardless of the characteristics, the rural communities have these common elements. Agriculture is the predominant industry, rural people earn less, employment opportunities are more limiting, tax bases are lower, transportation and health care are lacking, and comprehensive vocational schools are not available in many rural areas.

Education restrictions are of particular interest in our rural, depressed areas. Data indicates that our rural youth do not score as well as urban students on standardized tests. They often are not afforded the opportunity for special education and certainly many do not have the opportunity to select training from a comprehensive and quality system of vocational education.

The alternative to rural school administrators is to either settle for a limited vocational offering or to consolidate with other districts, thereby relinquishing control to another board or school. Even if the local school in a rural area has the financial resources to offer a comprehensive vocational curriculum, it still has other associated problems.

The economies of size are limiting—the rural isolation factor causes the student ratios to be low, resulting in a high per student cost per program. If a comprehensive vocational curriculum is offered, a rural school still has the problem of limited employment opportunities in its geographic area. Many rural schools do not have the financial resources with which to develop, and if they receive help to develop, they lack adequate tax bases to sustain a comprehensive program of vocational education. Some progress has been made, but the current act no longer allows states to pool dollars for new major start-ups.

Diseconomies of scale result in many limiting factors. Previous and existing federal vocational legislation requires matching the excess cost for the disadvantages and the handicapped. This creates a hardship for many small, rural schools and results in services not being provided to this targeted population.

Another area of concern evolves around qualified personnel. Rural schools do not have sufficient personnel to plan and administer comprehensive programs of vocational education, even if other factors were not limiting. Rural school administrative personnel have a full workload operating the education system without the burden of planning and administering a comprehensive program of vocational education. The administrator is likely not to be totally knowledgable about vocational education, resulting in vocational education being ignored rather than implemented. Rural schools also face the difficulty of securing and retaining an adequate qualified vocational staff because of their geographic isolationism.

Vocational education legislation must recognize that rural communities have unique problems and it is in the best interest of our nation to assist with these problems. Vocational education is the best system with which to deliver the human resource needs of our nation. Vocational education is already a part of the American education system; it uses resources from a broad base of local, state and federal sources; and it is a mainstream program.

ECONOMIC DEVELOPMENT

Federal investment is necessary to provide rural schools and communities with the resources necessary for economic development. Vocational education can provide the workforce for businesses and industries in rural communities resulting in the ability to attract new industries. It is my firm belief that in many of our rural communities, there will never be sufficient support systems to attract large industries. However, I just as strongly believe that it is possible to attract many small businesses and industrial operations in our rural communities through a comprehensive entrepreneurship approach where the vocational delivery system trains both the potential managers and the workforce for small businesses.

We are already have an entrepreneurship demonstration project in operation in Southeast Oklahoma. We are attempting to start new small businesses and industries through two processes: (1) commercializing ideas for new products, and (2) subcontracting vending operations from larger parent businesses and industries. All the support systems are in place to provide the technological base through an Industrial and Technology Center. Training managers and workers, as well as incubating the new industry, will be conducted by area vocational and technical schools. When each process is established and demonstrated, it can be transported to any rural commuity in any state for implementation. Through this kind of approach, we can provide job opportunities of the quality necessary to stop the out-migration of our educated young people.

Agriculture is still a major enterprise to all rural communities. Data indicates that only 6.9 percent of our high school enrollment is enrolled in vocational agriculture. Contrary to popular belief, a large proportion of federal vocational funds do not go to support programs of this nature in rural areas. We must continue to strengthen vocational agriculture if we are to continue to feed this nation and the world. True, the number of farmers may be decreasing, but resources will be necessary if we are to keep abreast of the new technologies emerging in agriculture. These technologies result in greater emphasis being placed on training in the specialized agri-related industries.

We must create and implement new approaches and innovations in agriculture to make the family farm an economic unit instead of treating the farming operation as supplemental income. We should strive to produce agriculture goods and related products in the general areas where they are consumed.

PRODUCTIVITY

The present concern over productivity relates to rural America as well as other sectors of our country. The rural potential is not being utilized. Persons in rural communities are untapped resources that should be used to help alleviate the decline of productivity instead of being allowed to become a contributor to the decline. Statistics indicate: (1) that our rural communities do not have the resources to provide the programs of vocational education necessary to give persons the opportunity to develop their chosen career to their needed potential; (2) that the out-migration of the educated young leaves the community with an older, less educated underskilled workforce; and (3) that the incidence of poverty is greater in rural areas, leaving an eroding tax base to support training and education.

Rural communities find it difficult to keep programs current with technological changes because of the lack of funds to re-equip training programs or to expand facilities and to train staff to meet the changes that are occurring. Rural isolation results in more funds being spent for energy-related expenditures and less for implementing high cost vocational training programs, yet this is the area where vocational education is needed so much. Sustaining high quality training programs results in a more fully employed workforce. Quality training results in greater profits for business and industry, thereby increasing their productive capacity. One thing is certain: if we are going to increase our productivity, we must reindustrialize our industries with new technologies. These new technologies are going to require retraining our workforce. We must develop some delivery system to accomplish this, and in my opinion, vocational and technical education should be that delivery system.

EQUITY

Our rural disadvantaged and handicapped persons must have access to resources necessary to provide the programs and services needed to develop their full potential. As a country, we can no longer afford illiteracy in our rural communities, or in any other community. Federal funds must be provided where necessary to fund programs and services in order to overcome this problem. Vocational education programs should equitably afford the young or old, the female or male, the disadvantaged or handicapped, or any student enrolled in a school system the opportunity to develop their desired occupational skills.

CAPACITY BUILDING GRANTS

Federal funds should be provided to allow rural schools to develop their capacity. Capacity development grants should be used to build and equip facilities, to provide sufficient qualified local staff and leadership, and to provide work-site training.

To meet the need for ongoing programs, federal funds should be provided to rural schools to secure equipment needed as a result of technological changes or new thrusts; to secure qualified instructors or provide retraining to staff to keep them technologically updated; and to provide the additional services required to develop the literacy skills of special needs populations.

Vocational education can play a key role in rural economic development. Federal funds are needed to provide quick-start training for new and expanding business and industry and to prepare managers for business and industry with an emphasis on entrepreneurship with both youth and adults. Also, funds are needed to train managers for small businesses to decrease the number that fail due to insufficient management skills. Funds are needed in rural areas for developmental activities and for meeting the need for technology transfer.

Vocational education should maintain and strengthen its emphasis on the occupational disciplines. Strong leadership is necessary if vocational education is to meet the challenge of assisting in solving national problems and concerns. Trade and Industrial Education is just as important as Business and Office Education on Distributive Education. Health Occupation Education is no less important than Vocational Agriculture or Comsumer and Homemaking Education. Equally important are Technical Eduation, Home Economics/Related Occupations and Industrial Arts. All have a role in providing quality vocational education.

Student organizations should not be overlooked as a major contributor in achieving national goals for vocational education, and they should remain an integral part of the vocational programs. Leadership activities experienced while participating in student organizations, coupled with the work ethics learned there, both equip our young people with skills that can be used throughout life. I know that the Future Farmers of America contributed to my career. Through the FFA activities in which I participated while in high school and college, I developed skills that I would not have been able to secure if I had not been exposed to them through Vocational Agriculture. I know that the Future Farmers of America are vital to the quality of, and serve as an integral part of, Vocational Agriculture. I have no reason to doubt that VICA, DECA, FBLA, HERO, HOSA, FHA and AIASA are equally as vital to their respective occupational disciplines.

SUMMARY

Mr. Chairman, in summary I would make the following recommendations to strengthen the impact that vocational education could have on national equity and economic efficiency goals. I recommend:

1. That the committee give special consideration or weight to factors that would allow extremely rural states to receive necessary additional funds;
2. That this committee give special consideration to factors that would allow funds to be used within states in areas of rural geographic isolationism;
3. That one of the unique purposes of the proposed legislation should be to improve the quality of vocational education by providing resources for literary and technical skills;
4. That the committee make provisions for capacity building grants for rural areas;
5. That entrepreneurship should be an integral part of vocational legislation;
6. That student organizations and occupational disciplines should receive visibility in the vocational legislation;
7. That there should be a separate title in this legislation that focuses on youth education and training in our nation; and
8. That a separate title should focus on adult education and training.

Attached to my printed statement is a copy of some data prepared by the National Institute of Education. I believe this data provides excellent support for my arguments on behalf of the need for vocational education in rural areas, and I hope you will review this recent report.

Mr. Chairman, thank you for allowing me the opportunity to address you and your distinguished colleagues of the Subcommittee.

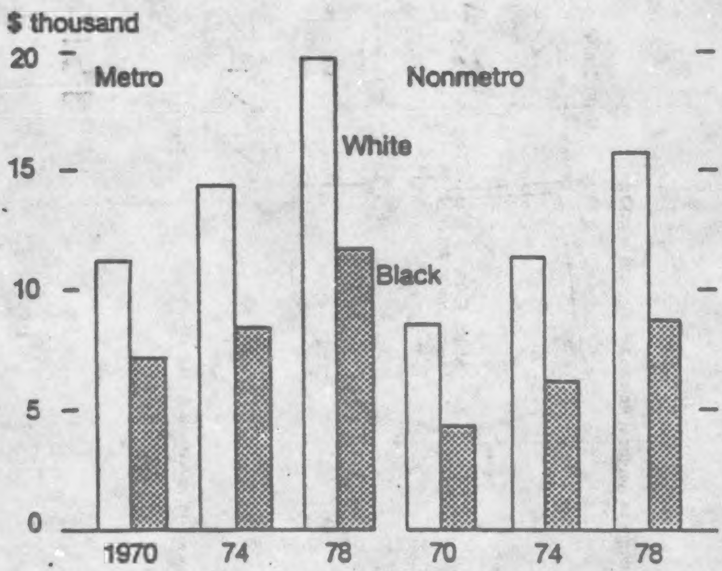
SELECTED NONMETROPOLITAN FACTS

Background Materials for

Conference on Vocational Education
in Rural Areas

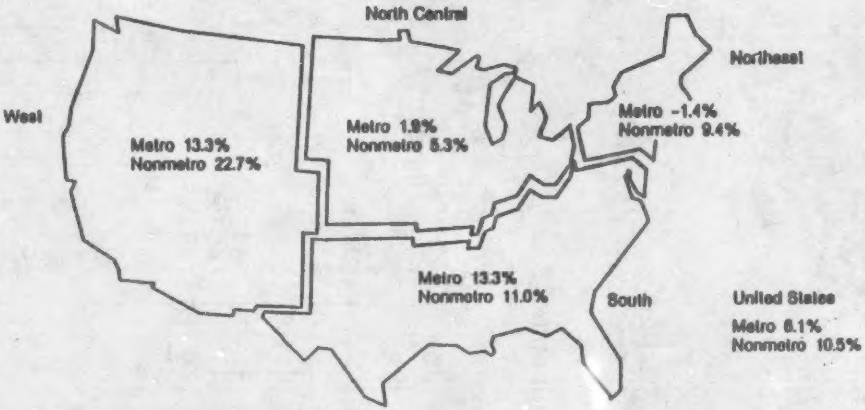
National Institute of Education
December 11, 12, 1980

Median Family Income



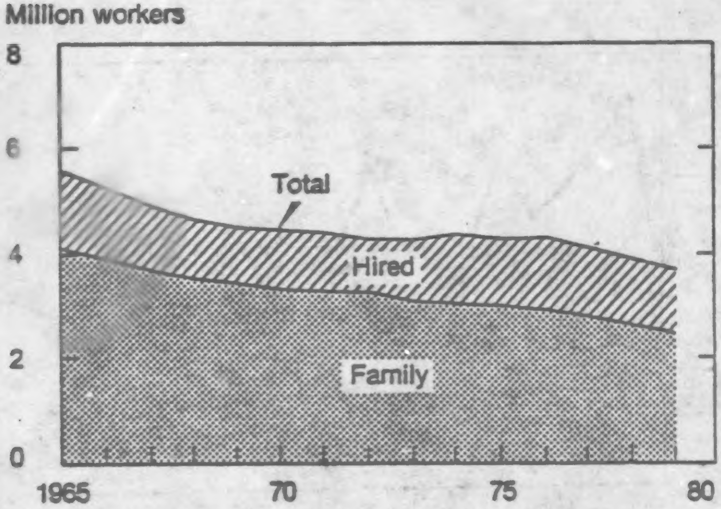
Median is the middle value with half below and half above.
Source: Bureau of the Census.

Change in Regional Population Growth, 1970-78


North Central
Northeast
West
Metro 13.3%
Nonmetro 22.7%
Metro 1.8%
Nonmetro 5.3%
Metro -1.4%
Nonmetro 9.4%
Metro 13.3%
Nonmetro 11.0%
South
United States
Metro 6.1%
Nonmetro 10.5%

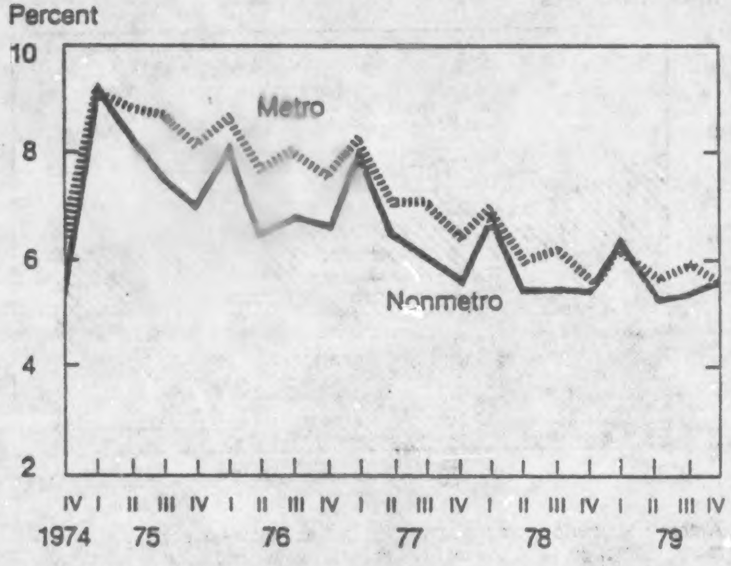
West and U.S. totals include Alaska and Hawaii.

People Employed on Farms



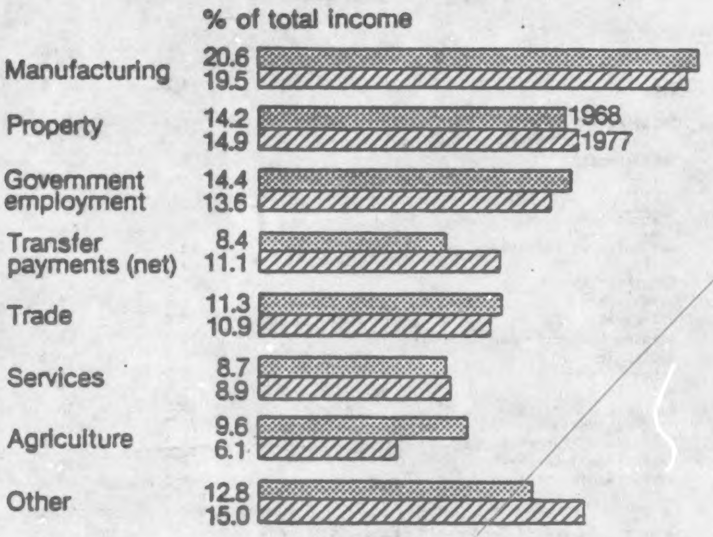
Average number of persons employed in 1 survey week each month—through 1974, the last full calendar week ending at least 1 day before the end of the month; beginning in 1975, estimates are quarterly and include the week of the 12th of January, April, July, and October.

Unemployment Rates for Metro and Nonmetro Areas



Quarterly data.
Source: Bureau of Labor Statistics.

Sources of Rural Income



Other includes transportation, communication, and public utilities; finance, insurance, and real estate; and contract construction and mining.
Source: Bureau of Economic Analysis, U.S. Department of Commerce.

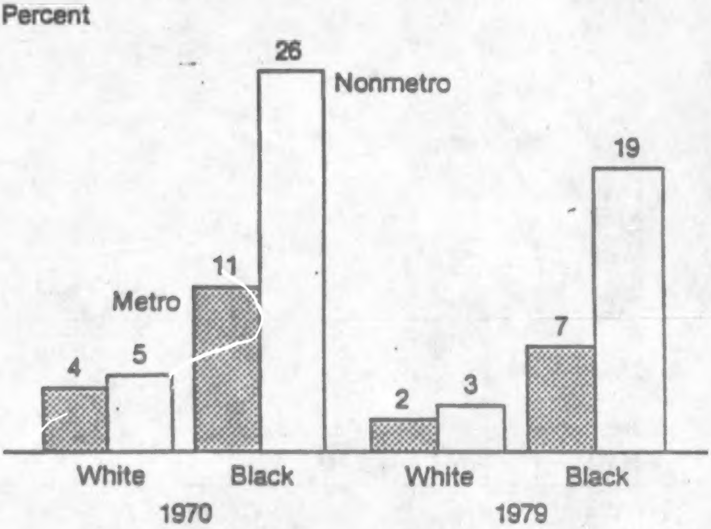
TABLE

PERCENT SELF-EMPLOYMENT, BY SECTOR
1975

	Non-metro	Metro
Total	17.4	8.9
Total-Male	23.4	11.8
Total-Female	8.9	5.0
Sectors		
Agriculture, Forestry	53.9	35.5
Mining	9.5	6.2
Construction	24.0	16.2
Durable Mfg	8.2	4.0
Non-durable Mfg	5.6	3.9
Transportation Communications	12.4	6.1
Wholesale Trade	14.2	8.5
Retail Trade	14.3	8.1
F.I.R.E.	13.9	8.1
Business & Repairs	30.7	16.7
Personal Services	21.7	14.1
Recreation, Entertainment	13.7	16.8
Professional Services	8.7	8.7
Public Administration	9.5	3.2

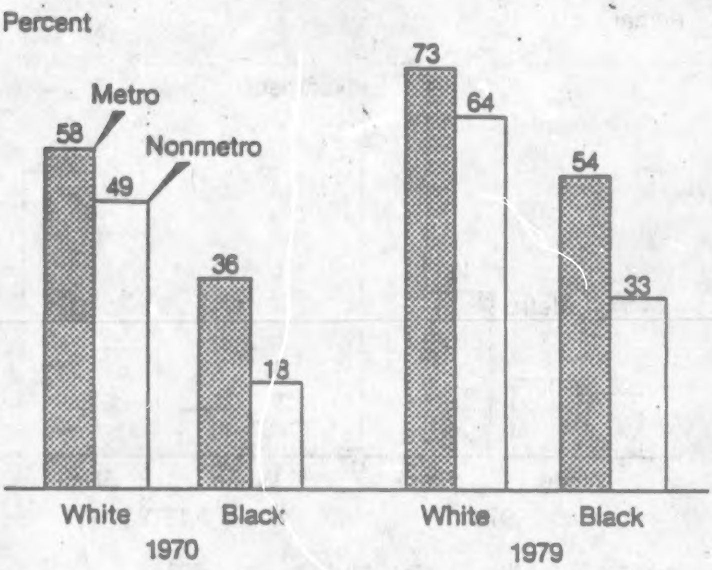
Source: Survey of Income and Education, Bureau of the Census, 1976

Adults with Less than 5 Years of Schooling



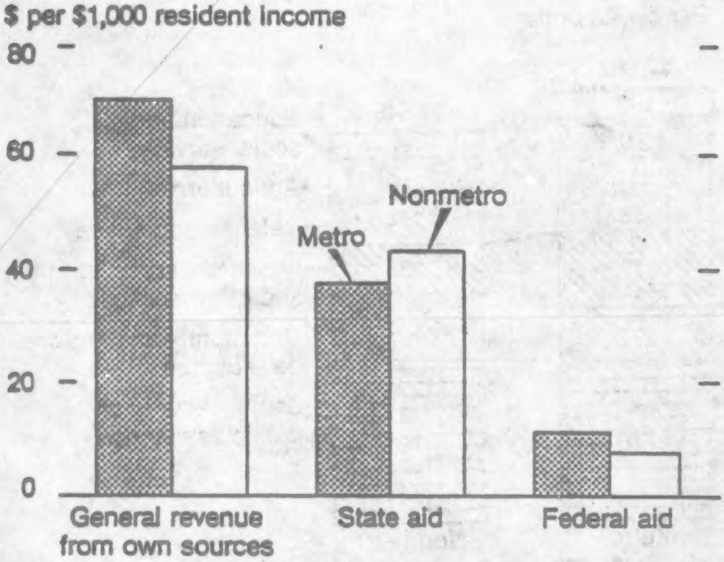
Adults with less than 5 years of schooling are defined as functional illiterates.
Source: Bureau of the Census.

Adults Who Graduated from High School



Adults are persons 25 years old and over.
Source: Bureau of the Census.

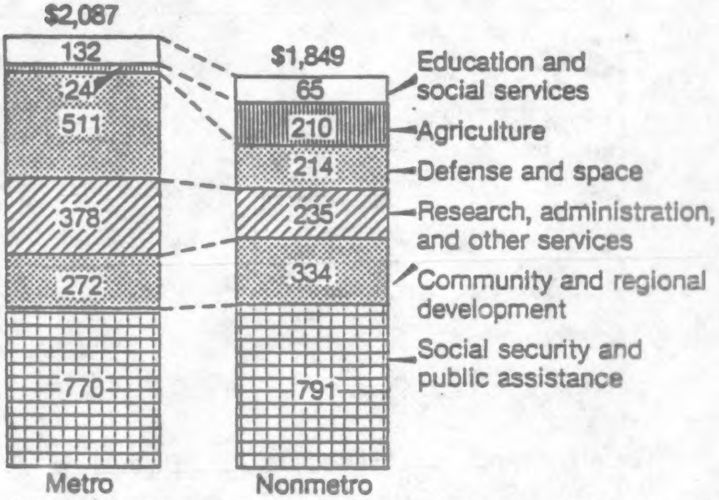
Local Government Revenues



State aid includes Federal aid distributed by States.
Source: 1977 Census of Governments.

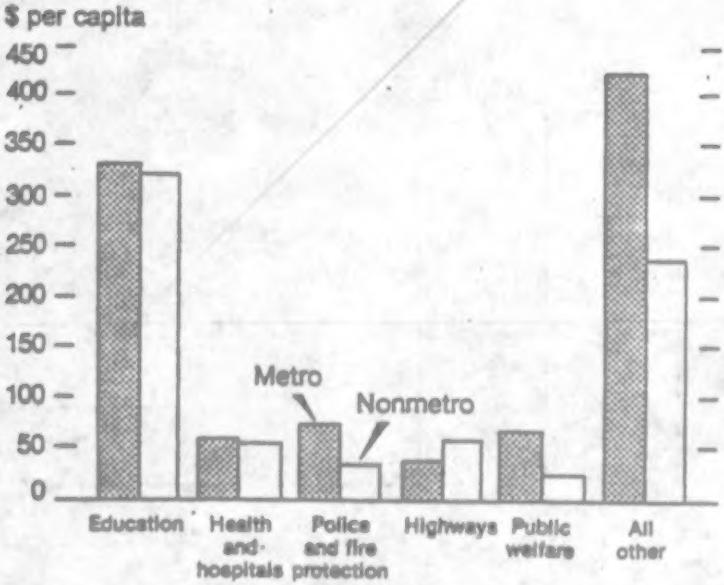
Where Federal Program Money Is Spent

Per capita outlays



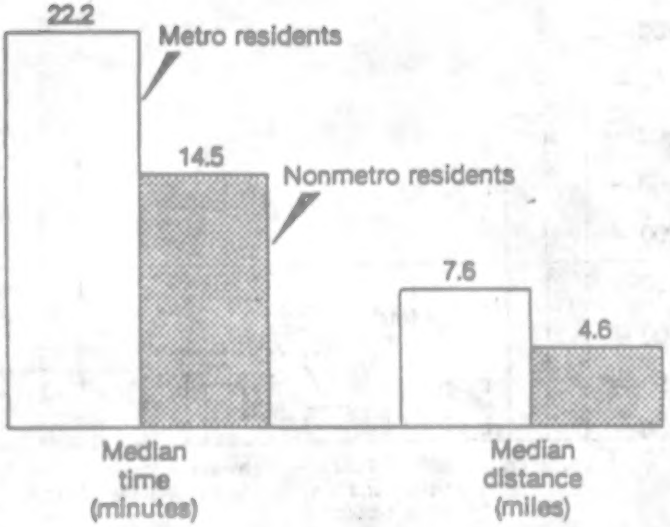
Includes FY 1978 expenditures, loans and loan guarantees for 87 percent of Federal funds for which metro-nonmetro distribution is known or estimated.

Local Government Expenditures



Source: 1977 Census of Governments.

Commuting Time and Distance



Median is the middle value with half below and half above. 1975 data.

Mr. KILDEE [presiding]. Congressman Watkins, your leadership role in the Rural Caucus here in the Congress gives you special credentials for your testimony today on this particular area of vocational education. I did enjoy spending time with you at a vocational education conference in New Orleans, because I think it brought together business elements, professional educators, and those of us who are lawmakers who are trying to provide good authorization and to preserve good appropriations for vocational education.

I frankly share your concern about the 20-percent cut to vocational education proposed by the White House for next year. I find it an absolute contradiction on one hand for the administration to support reindustrialization of our country and on the other hand to propose a 20-percent cut to vocational education, one of the greatest tools for this reindustrialization. I think it is important that people speak out on that.

There has been an urgency in the press to "support the President without question." But we in the Congress have a constitutional obligation to question. I intend to carry out my constitutional responsibility and I know you do. I think we have to talk to the White House and let them know their proposals are contradictory.

So, I commend you for your testimony this morning. As I mentioned, your credentials in the Rural Caucus give you double credibility before this committee.

In your testimony, you mention several volunteer organizations. Can you tell us how the Federal law and the Federal Government can encourage Future Farmers of America and the various distributive education clubs in enhancing vocational education?

Mr. WATKINS. One of the key things we in Congress can do is to recognize outstanding student organizations in legislation and in congressional reports. Sometimes we have full intentions for certain things to be done, but we don't find them being carried out downtown in the agencies. I think we need to spell it out clearer to the Education Department that we expect youth organizations to be an integral part of vocational education. As I mentioned, student organizations are the motivating force, the inspiration for these young people to achieve.

We are dealing with a product, a young person's life, and the more we challenge and allow a student to develop his or her life, the better off we are as a nation.

I know from personal experience that this can happen. Therefore, when I see agency people trying to water down such programs by saying they have nothing to do with the area of vocational education, I think they are missing the vital point—motivation.

One of the key things you have to ask yourself as a teacher is how do you motivate your students? If you can get them motivated, then sometimes they just carry you as their teacher right along with them. I think that is one of the key things that the Future Farmers of America, the Future Homemakers of America, VICA, FBLA organizations are actually doing out there—providing motivation and developing leadership.

I hope this can be discussed personally, Mr. Chairman, if not in a congressional report, so the people downtown in the agencies will not miss that vital ingredient of education—the benefit of student organizations.

Mr. **Kildee**. Thank you.

Mr. Williams, do you have any questions?

Mr. **Williams**. Thank you, Mr. Chairman.

Wes, I want to join the chairman, Mr. Kildee, in his welcome to you here today and particularly his notice of your good work in education in rural areas, as when you are chairman of the Rural Caucus.

Wes, is your district in Oklahoma growing at a rate slower than are the urban areas in Oklahoma?

Mr. **Watkins**. Yes, Pat, it is growing slower than an urban-suburban area. For instance, while Oklahoma City decreased in total population, the surburban area around it has experienced tremendous growth. In the rural area that I represent, some of the counties have had a small increase in population since 1970. A small amount results from people coming to the hill country to retire. But in every county in my district there are from 50 percent to 68 percent fewer people there than were in existence in those counties 40 and 50 years ago.

So one of the things that concerns me as I watch the forces work within the Congress, is that we tend to consider only current growth rates rather than long-range population trends in geographic comparisons. I would like to give our loved ones an opportunity to return home to raise their children and grandchildren, and be gainfully employed in that area. We don't have that opportunity under present economic constraints.

Mr. **Williams**. This notion, which is developing because of the last census, that rural America is growing while urban America is not, sounds all right, I suppose, on the surface as a general statement, but when you start to look at these various areas, you may find that Denver may be growing, but the surrounding towns are dying away.

So I guess we need a separate definition with regard to how we legislate and how we target our legislation. We need some separate figures to define the differences between a rural area and the pockets of rural poverty which are losing people.

Mr. **Watkins**. If I might point out, the little community I loved as a boy had at one time 3 banks, 3 cotton gins, and 23 thriving businesses. Today, Bennington, Okla., has only two stores. The economic decline of the 1940's has continued.

Mr. **Williams**. I would be surprised if you had any data you could supply, but generally how are the academic achievement levels of the children in these very small towns?

Mr. **Watkins**. Nationally, rural youth do not score as well as urban students on standardized tests. In the midsixties I served as a high school relations director for Oklahoma State University, visiting schools across the State of Oklahoma. Generally speaking, I found that people from rural Oklahoma did not achieve as high on test scores as did urban students, but because of their motivation and their achievements through FFA, FHA or other student organizations, they went on to college and did better than did the urban children.

As I kiddingly tell people, my high school didn't teach chemistry—the only chemistry I knew was on a fertilizer sack. But I was motivated when I got to college, and took chemistry and did as well as the students from the cities.

Mr. **WILLIAMS**. The facts you give this committee, I find to be depressing. Unemployment, poverty, still financial resources that are limited, an eroding tax base.

It sounds to me like this committee is listening to testimony out of the thirties, listening to the testimony when this country is turning away from the needs that we sought in the thirties.

I attended a meeting in Montana a while back and we had as a speaker, as one of the speakers, the director of that county's welfare system—we call it social and rehabilitation services—she had been with it since its inception as a young girl working as a typist, now she is the director. So she came there to tell us the life of the welfare system in this country.

When she concluded, and it was time for questions, a gentleman in the audience rose to his feet and said, "Well, all of that was fine when it started. We understood the need then, during the depression, but why is welfare still with us?"

And she said, "Because for many people, the depression never went away."

I think Wes Watkins, you are here today to tell us that in some places back home, the depression never went away.

Mr. **WATKINS**. When quizzed about the recession, I told a reporter that the depression never has left much of my area. We still have people in my district who are barely hanging on, who are transfer income folks, people dependent upon welfare and social security. That is what motivated me to get into politics in the first place—I think they have become a forgotten people.

What worries me today, Pat, is that we see legislation formulated that actually locks people into the concrete jungles instead of letting them go back to where they want to live and be productive citizens. In Oklahoma, 94 percent of the people who left my area after graduating 5 years ago or longer, would like to come home if they could find a comparable job in the community where they grew up.

This tells me that 9 out of 10 of the people who left my area would like to come home. They are living where they don't want to live, and they are working where they don't want to work, which brings about tremendous social pressures and problems.

We educate young people, we motivate them and they go off to get a college education, but they can't come back home because there are no jobs for them. Vocational education has been great to accept and run with the challenges in depressed areas, but as I mentioned, industry won't expand into a rural depressed area. We realize it's because they don't have access to a playing field, there are no industrial parks, there are boarded up windows, and there is grass growing in the streets. Industry won't expand into rural areas, so businesses there can't grow and new local ones can't get started.

We have now put together the most comprehensive industrial innovation center in the United States in the rural depressed area of southeast Oklahoma. We want to give birth to industry in this country. We are working with vocational education, with industrial incubators, and with a college entrepreneurship curriculum in encouraging young minds to be creative and innovative, to come up with new idea and new processes. Not all with work, but with some will and vocational education, we think it will work. In fact, we are getting our first product on the line now. We are going into rural communities to build small businesses and provide job opportunities so people can stay there to live and work.

I think rural America has been forgotten, and I think it behooves us in this country not to forget those people in the rural isolated areas of our great country.

Mr. **Williams**. Thank you, Congressman. It is nice to see you here again this morning expressing your concern about this important issue.

Mr. **Kildee**. The Chair recognizes Mr. Craig from Idaho.

Mr. **Craig**. Thank you, Mr. Chairman.

Congressman Watkins, reading and hearing part of your testimony, echoes a lot of my concerns. Interestingly, we have similar backgrounds. My community and your community suffer from similar kinds of problems, so your testimony is very interesting to me. I think I have to make a few exceptions to your arguments and ask if you won't respond to a couple of questions.

If you will, I am curious about that rural town you talk about today that was once a vibrant community but is now a small community. I assume it was a very strong agrarian base.

Is any of the farmland in that community today, or surrounding the community not being farmed?

Mr. **Watkins**. Most of it is being farmed, growing soybeans or peanuts, and the rest is cattle country. Technology in agriculture has allowed those farms to get a lot larger than they were when I was a boy. So, people can't come back to start new farms but hopefully, with manufacturing, they could return there.

Mr. **Craig**. You made the point I was trying to reach—that we have had evolutionary process in agriculture that took many of our small agrarian communities into a transformation process, that has resulted in the boarding up, and because they were agricultural based and continued to be strong agricultural areas, and never having the thurst toward small business or industry, they went the way that agriculture went.

I don't disagree with the idea that we should attempt to revitalize those. That is why I have to take issue in general, as a strong supporter of vocational education, and as a product of vocational education, I still think that we recognize what the administration is trying to do. It becomes very difficult for me to sit here in total protection of vocational education and say that in light of that, we will have to cut more from child nutrition or more in aid to dependent children, because vocational education happens to be more important than others. Those arguments will be effectively made in all the other committees, I am sure.

I guess it is a question of where, how much, and how evenly you can make it, because we are, in my opinion, to revitalize the economy. I think we have to adhere to your philosophy that it can best be done by private enterprise. The past 20 years of locking ourselves in certain programs that were to be the impetus for economic stimulus doesn't have a very good track record.

I would say the proposal by the administration to create free enterprise zones might work very well in the rural communities, if we effectively try that process of vocational education in with it, to provide a basis for a work force that can be so critical in the revitalization of some of those areas.

Mr. WATKINS. Mr. Craig, I invite you to become a cosponsor of my bill to create rural free enterprise zones. I see a bill being written and pushed by the President for urban enterprise zones, and I don't want him to forget there happens to be a rural area out there that is just as depressed with just as many problems.

I, too, am an individual who came from private enterprise to Congress. I was once a home builder and developer. I would more than welcome private enterprise to come into rural areas and solve the problems we have discussed. I would love it if all of them would develop a social conscience and help in developing a rural deprived area of this country.

Unfortunately, many of the counties I serve don't have one single manufacturing factory in them. I am ready for businesses to come into rural areas to put up the investment capital because there are no banks or savings and loan companies willing to do it. I am willing to leverage what we can through a few Federal dollars until, hopefully and prayerfully, the private sector will assist us in revitalizing that area.

We have committed an unforgivable sin in this country by locking our people in concrete jungles where they are a number and not a human being. We have had not only a deterioration of the small rural areas but also a deterioration of social concerns in this country because people have lost their identities.

In my area, we have very limited social problems, because many of our people don't mind getting their name in the headlines for being an outstanding FICA student, or FFA student. I would welcome any means of trying to revitalize that area to build the opportunity for our loved ones to come home and be able to provide an opportunity for their children and grandchildren to be able to stay, live, work, and raise their families in that area.

I would bet that if you surveyed your area it would be much like mine, in that 5 years after graduating from high school, by far the greatest majority of your people would like to come home if they could find a comparable job within commuting distance of the area where they were raised.

I think there is a rural depressed segment of our society that is not being served by the private sector or by the Government to help revitalize itself. I am willing to join in any effort we can put together, either private or public, that would stimulate economic recovery in these areas.

Mr. CRAIG. I appreciate the invitation to look at that rural free enterprise zone piece of legislation. I would be very interested in it.

Second, I recognize exactly what you are talking about. The State I represent for the first time in 1980, retained more than 50 percent of its graduating seniors from colleges and universities and from vocational education programs within the boundary of the State. We have a net export of our people since the State began.

But, because of the development, both rural and urban, we have seen that transition come about.

One of the ingredients that I think we have to talk about is what business reacts positively to. I don't think it necessarily comes in the form of all Government programs and assistance. It is providing a tax opportunity which would cause business to move where those advantages would exist.

We have provided that in our State, and very interestingly enough we have found those people moving, taking under consideration health services, general community services are less than they expect, but they will become a direct participant in working in that area.

So, I strongly believe there are avenues that weren't necessarily created by Government programs that can assist in the revitalization of these rural areas.

Mr. **Watkins**. I agree, and the bottom line I always look at as a businessman, was, could I make a profit? But, for instance, we don't have the opportunity for adequate housing in rural areas. If these people can't get insured mortgage loans or the support of savings and loan companies, then these rural people are cut out of a very essential ingredient, and that is a house, a home.

What I am saying is the package proposed by the President is not evenhanded for rural America when the only encouragement for an industry to locate there is shut off or the vocational education program is shut out, pulled away. If it is the only one in town and we take it away, is that evenhanded? I don't think so.

I am doing everything I can to get the private sector to join hands in a consortium to provide as many services as possible. We are excited in my area. We have dreams that we hope will become a reality. But, instead of recognizing our efforts to increase productivity and encourage entrepreneurship, this administration wants to eliminate out our support. I am going to visit with Dave Stockman at OMB about it. We are putting together industrial incubators—you are a farm boy, you know what we are talking about. We are working on new products in the same way you use an incubator to raise a young animal. We are putting new businesses in incubators, making sure the inventories are carried, making sure the books are correct, making sure we have the skilled worker, making sure they are incorporated correctly.

When they are economically healthy they, like a little chicken, we are going to spin it out into the community. That is what we have done to try to revitalize a chronic unemployed area of this country that has been ignored.

I am looking for evenhandedness and that is what I am going to be talking about to Stockman Thursday morning.

Mr. **Craig**. First, I concur with you. Evenhandedness is the only way that will assist in the revitalization of our country.

We talk about the Government empetus that can be placed into a particular situation that will cause business and industry to flow into an area. I was talking to a banker once a couple of years ago. "It appears to me you are using the SBA as a pretty effective crutch and excuse not to make loans which are reasonably viable."

He said, "why not? The feds are willing to pick up the bill, why should we?"

What he was saying in many situations, where the opportunity for investment existed at the private level because the Government had entered in at a given level, they were using the taxpayer as a crutch to bolster up their financial statement, when they might have—I say might have—entered into and participated if the opportunity was right.

Mr. **Watkins**. We are talking about SBA, for instance. SBA, is not fair and equitable in this country. A little rural banker goes 250 miles to Oklahoma City to submit an SBA loan application and finds he didn't have all the t's crossed and the i's dotted. After he makes four or five trips, he gives up with that program. We do not have a delivery system for SBA in rural America. Seven percent of the handicapped funds in education go to rural areas. Seventeen percent of the community development block grants go to rural areas, 25 percent of UDAG programs go to rural areas.

I would probably be correct if I said probably 25 percent of the vocational education money goes into rural areas, and I say, is that evenhandedness? I don't think so. We need to evaluate what is currently there. If we cut it all out, that leaves no delivery system, and therefore, no hope.

What I am trying to do is get the administration to recognize that they have not been fair and equitable, and we need to bring fairness and equity into these programs.

Mr. **Craig**. Thank you.

Mr. **Kildee**. Mr. Biaggi.

Mr. **Biaggi**. If no questions except to say we have more in common than differences and we should focus attention on the similarities than dissimilarities.

Mr. **Watkins**. Mr. Biaggi, Charlie Rangel and I know that you lost your tax base and you have high unemployment in New York. Those things that exist in the heart of New York and in the heart of rural depressed America are much the same.

Chairman **Perkins** [now presiding]. We heard many of the same things last week when we heard from the urban people.

Let me thank you very much, Mr. Watkins for your testimony. You have been helpful to the committee.

Next we have a panel: Robert Goodman, Center for the Study of Public Policy, Somerville, Mass.; Dr. Earnest Palmer, superintendent, Perry County Board of Education, Marion, Ala.; Dr. Don Garrison, president, Tri-County Technical College, Pendleton, S.C.; and Mr. John Moran, director, research coordinating unit, Maine State Department of Education.

STATEMENTS OF ROBERT GOODMAN, CENTER FOR THE STUDY OF PUBLIC POLICY, SOMERVILLE, MASS.; EARNEST PALMER, SUPERINTENDENT, PERRY COUNTY BOARD OF EDUCATION, MARION, ALA.; DON GARRISON, PRESIDENT, TRI-COUNTY TECHNICAL COLLEGE, PENDLETON, S.C.; AND JOHN MORAN, DIRECTOR, RESEARCH COORDINATING UNIT, MAINE STATE DEPARTMENT OF EDUCATION

Chairman **Perkins**. Mr. Goodman, you may proceed in any way you like. Without objection, all written statements will be inserted in the record.

STATEMENT OF ROBERT GOODMAN, CENTER FOR THE STUDY OF PUBLIC POLICY, SOMERVILLE, MASS.

Mr. GOODMAN. I would like to thank you and your committee for your interest in my recent report for the National Institute of Education. (See Appendix No. 2.) The programs that I reported on vary in detail but they share a common theme, industry that relocates in a new State or expands where it already operates, receives State subsidized job training at little cost or as is becoming the norm, no cost.

The programs usually run from about a week to several months. The State provides instructors or pays for the company's own instructors. The class is usually held at a local school or a building that is rented by the State or may be held in the firm's own factory. The trainees are either not paid at all or sometimes paid through Federal and State job training money.

These programs have been described as inducements for creating new businesses as essential tools for developing jobs. They have also been criticized as simply one element in a battery of techniques that are used by the States to lure jobs away from one another.

I got into the use of these training programs in South Carolina and Minnesota. I have interviewed business officials, business and labor people, and others involved in business and economic development in those States. The conclusions, I believe, suggest much broader educational and social implications than these relatively smaller program might initially imply. In some cses, I think they raise immediate policy and legal questions.

Broadly stated, let me describe the conclusions:

First, I believe that looking at the evidence of both States and the studies that have been done on a national level, there is nothing or very little to none that subsidized job training plays a critical role in a firm's decision to expand or maintain jobs in a particular State.

In the particular States I visited, what was offered as job creation evidence were letters of endorsement by company officials stating free job training was critical to their decision to expand. This kind of evidence seems to be self-congratulatory rather than precise.

One program supervisor routinely asked participating companies for letters of endorsement. It is not surprising that firms receiving subsidies endorsed the programs that produced the subsidies.

Upon extensive questioning, officials and business people agreed that the training costs provided by the subsidies were not critical to the company's decision to relocate or expand. What they did emphasize was that it was an important gesture of gratitude and welcome.

The director of Minnesota's Economic Development Department was more blunt in his evaluation. "The incentives," he said, and I quote, "are just fluff and were not significant economic factors in a company's decision to either expand or relocate."

Especially in the case of South Carolina, the programs appear to benefit industry, primarily as a means of screening employees with labor union background, behavorial and other characterizations, attractive to industry. This raises concern as to whether these programs are undermining federally protected rights of State residents.

In South Carolina, with help from the State's Job Service and business people, the State Development Board and the State Board of Technical and Comprehensive Education will screen workers for attributes which business considers desirable. The attributes screened for, according to tech board and development board officials, are cooperativeness with and loyalty to employers, punctuality, attitude toward work, previous skill level and job experience, criminal background, aspirations in life, and record of union activity.

The lack of union activity in South Carolina is the State's most important attraction for industry, according to Robert E. Leak, executive director of the development board and ex official member of the tech board. "Unions have given managers such fits," said Leak. The State's Right To Work Law and the screening provided by the special schools programs, Leak says, provide an attractive inducement to industries expanding within the State and those looking to relocate from other States.

South Carolina also helps screen workers by finding locations for industries that are seeking to avoid Federal EEOC requirements for minority hiring. If an industry locates in a predominantly minority area, says Leak, their hiring composition must by law reflect that area's population. "Management believes if it locates in a minority area, they are more likely to be organized by unions. If business doesn't want to locate in a minority area because they don't want to hire minorities, then we have to locate them someplace else or we lose them."

The special schools program often limits workers attempts to upgrade their jobs. This is done through a quota system which limits the entry of trainees from existing local industries who are trying to change jobs. According to Mr. Leak, if officials in charge of screening find that large numbers of applicants for a training program for a new industry already hold jobs in a particular local industry, they will restrict the number of applicants from the industry that are allowed into the program.

This quota policy appears to respond to the concern of many State industries, especially those in textiles, which have a large, relatively low paid labor force. The introduction of a new industry into these communities, while still paying relatively low wages compared to other parts of the United States, often pay higher wages than local textile jobs.

Special schools also screen applicants for previous union background. "If you are known to be a union agitator," Leak explains, "You will be dropped from consideration." In addition, he said, State officials in charge of screening will ask the local sheriff's office to check for the job applicant's previous criminal record.

According to several officials I interviewed at both the tech board and the development board, a singular attraction of the special schools program is the fact that no trainee who enters the program is guaranteed a job, nor are any of them paid during the training. Trainees are required to sign an agreement which specifically states they understand they won't be guaranteed a job.

This lack of job status during the training process, according to Leak, protects companies against potential lawsuits by trainees for infringement of their civil rights. "People who can't hack it," says Leak, "are dropped without recourse. You can't go to EEOC or some other agency because you are not officially employed. If you are in an on the job program and you are dropped, you might bring an EEOC action."

In both States, these programs reflect increased emphasis by educators on training people for existing industrial jobs as opposed to providing broader education and skills. Program content lacks any relation to a set of priorities for determining the kind of training which might be most beneficial to an individual. The rationale is often any jobs are better than no jobs, therefore, any kind of training is better than no training.

Educational and business needs may sometimes overlap, but a business's immediate needs may not in many cases be consistent with training a person in a broad range of skills, which could give him or her a lifelong possibility of job improvement.

For example, in negotiating with an electronics firm for a training program, Stantion Williams, the new jobs director in Minnesota, was told the company was worried that trainees might be given too many skills and could then move on to better jobs. "They were minimum wage jobs," said the director, "and they were worried they would lose their employees if they were overtrained. We told them they could control the program, but they were still worried." In this case, the company decided against using the program.

Both States' programs raise questions about the use of funds from Federal agencies to help individual States compete against one another. In addition, these programs contribute to the spiraling escalation of financial incentives that States offer industry.

According to Wes Cochrane, assistant commissioner of the Minnesota Department of Economic Development, the more other States provide subsidized training for industry, the more Minnesota must also provide such training. He cites the example of a Swedish ski manufacturer that had first committed itself to locating in Minnesota, then received offers of training subsidies in a number of other States. The company came back to Minnesota and asked if the State would match the training subsidies of the other States. "There was no New Jobs money available at the time," said Cochrane, "so the local AVTI—Area Vocational Training Institute—paid for the instruction." CETA funds were also used to pay 50 percent of the trainees' wages for 26 weeks. Since the local AVTI didn't have enough of its own funds to subsidize the company's training, money was shifted to it from the programs of a local AVTI in another part of the State.

In some cases, the use of job training funds appears to be an outright subsidy to industry as opposed to funds actually needed for job training.

The new jobs director explained that he was asked by the Governor's office to estimate how much money would be needed to train a group of garment workers for the Jack Winter Co. in Eveleth, Minn. His estimate came to $25,000. But in order for the firm to receive a $100,000 grant from the Upper Great Lakes Regional Commission, the firm needed a $100,000 matching grant from another source. "The Governor said we need to come up with it," said the director. "I didn't think we needed to spend that much, but I went along."

There has been no significant evidence from either these States or other national studies to demonstrate that the subsidized aspect of these programs plays a critical role in either expanding or maintaining jobs in a State.

Although public officials in both States claimed their particular job training programs help create new jobs, none were able to offer any independent evidence to support this hypothesis. What was offered were letters of endorsement by company officials stating that free job training was critical to their decision to expand. This tends to be self-congratulatory, rather than precise. One training program supervisor routinely asks participating companies for letters of endorsement. It is not surprising that firms receiving subsidies will support the programs that produce the subsidies.

One more extensive questioning official and business people agreed that the training costs provided by the subsidies are not critical to a company's decision to relocate or expand jobs. What they did emphasize, however, was that subsidized training was an important gesture of gratitude and welcome. Kent Eklund, director of Minnesota's Economic Department was more blunt in his evaluation. The incentives are just fluff for companies, he said, and are not significant economic factors in company's location decisions.

One of the most important questions raised by these programs is the nature of the role played by State education departments and educators. For the most part, they appear to be acting simply as conduits for moving State and Federal funds to industry. In some cases they participate in the process of screening individuals for the traits attractive to industry. These functions in fact involve little, if any, educational content.

The reason for having education departments involved appears to be to meet Government requirements for distributing education funds; in effect, to be able to use funds earmarked for education purposes for industry training purposes. In South Carolina, a separate education department was created—the State board for comprehensive and technical education—for the purpose of training directly for industry. But to meet Federal requirements for receiving education money, the new board was set up to be an official part of the State education department. State officials acknowledge there is in fact little direct relation between the agencies and their purposes. Indeed, tech board and tech college administrators take pride in their direct ties to industry and the lack of broad educational curricula in their programs.

"We don't just court them (industry)," said one technical college dean, "we marry them. * * * We will do anything that companies ask of us that we can possibly do."

A number of administrators stressed that even more emphasis would have to be placed on industry's needs in the future. They indicated that young people would have to be persuaded about the benefits of blue collar work. Vocational administrators in South Carolina, citing cost considerations, are already considering shifting more education to the workplace.

Many educators involved in the special training programs expressed the belief that liberal arts education is simply not the function of vocational schools. Mel Johnson, director of program improvement and information for Minnesota's Division of Vocational and Technical Education, notes for example, that there are no liberal arts taught in the programs he administers, and that the role of vocational programs is training people to do a job and fit in, to take order. * * * If you then get a good job and you have cultural interests, you can do it later. But if you are liberally educated in our society and don't have a job, you can't participate.

The increased use of education departments to provide special programs in which industry is effectively determining the entire program, from location, to content, to criteria for choosing suitable trainees, has profound implications for the future of State supported education. These programs are leading to more limited and often segregated opportunities for education, training and jobs.

Since funds for these special programs is made available to a community only after an industry has decided to locate in that community, their effect as a model future education would mean that many of the poorest rural communities would be bypassed. The effect of restricting access to training programs to the kind of people industry considers desirable will mean that residents whose racial and sexual characteristics don't fit industry's preferences can also be excluded.

The creation of education departments whose main function is the satisfaction of industry's employment needs is a serious digression from the purpose of public education. The words "employment needs" are stressed here because the role of educators has not simply degenerated from broad education to limited training, but even the training role has in many cases been superseded by a screening role.

The question of industry's influence over public education is an old and controversial one. In 1913 John Dewey advocated opposition against every proposition, in whatever form advanced, to separate training of employees from training for citizenship, training of intelligence and character from narrow industrial efficiency. The enthusiasm with which some legislators and educators are adapting these special industrial programs would indicate a very different kind of educational opportunity than the programs that were the vision of the Nation's public education advocates.

I would like to thank the committee again for the opportunity to present this testimony.

[The prepared statement of Robert Goodman follows:]

PREPARED STATEMENT OF ROBERT GOODMAN, CENTER FOR THE STUDY OF PUBLIC POLICY, SOMERVILLE, MASS.

I thank Chairman Perkins and the Subcommittee for their interest in my recent report for the National Institute of Education. This report evaluates a special type of vocational program that has gained increased use by the states as they attempt to expand industrial jobs and attract new industry.

These vocational programs have different names in different states. There is South Carolina's "Special Schools," Minnesota's "New Jobs," and Texas's "Profi-Train." Though they vary in detail, they share a common theme: an industry willing to relocate to a new state, or an industry which expands in a state where it already operates, receives state-subsidized job training for its workers at little or, as is becoming the norm, no cost.

The programs are usually short-term; from a week to a few months—in some cases they may run as long as a year. The state provides instructors or pays for the companies' own instructors. Classes are held at a local school, a building rented by the state, or the firm's own factory. Trainees are either not paid at all, or sometimes paid through federal or state job training monies. The programs generally involve extensive participation of a state's economic development agencies and vocational education departments.

These training programs have been described by supporters as inducements for the creation of new business, and as essential tools for developing jobs. They have also been criticized as simply one element in a battery of techniques being used by states to lure jobs away from one another.

I evaluated the use of these training programs in two states: South Carolina and Minnesota. In doing so I've interviewed government officials, business and labor people and others involved in education, job, and economic development in these states. The conclusions suggest much broader educational, economic and social implications than these relatively small programs might initially appear to imply. In some cases I believe immediate policy and legal questions are raised.

My conclusions, broadly stated, are as follows:

1. These programs appear, especially in the case of South Carolina, to benefit industry primarily as a means of screening potential employees for labor union background, behavioral and other characteristics attractive to industry. This raises concern about whether these programs are in effect undermining federally protected rights of state residents.

In South Carolina, with help from the state's Job Service and business people, the State Development Board and the State Board for Technical and Comprehensive Education (Tech Board) will screen workers for attributes which business considers desirable. The attributes screened for, according to Tech Board and Development Board officials, are cooperativeness with and loyalty to employers, punctuality, attitude towards work, previous skill level and job experience, criminal background, aspirations in life, and record of union activity.

The lack of union activity in South Carolina is the state's most important attraction for industry, according to Robert E. Leak, Executive Director of the Development Board and *ex-officio* member of the Tech Board. "Unions have given managers such fits," said Leak. The state's "right-to-work" law and the screening provided by the Special Schools programs, Leak says, provide an attractive inducement to industries expanding within the state and those looking to relocate from other states.

South Carolina also helps screen workers by finding locations for industries that are seeking to avoid federal EEOC requirements for minority hiring. If an industry locates in a predominantly minority area, says Leak, their hiring composition must by law reflect that area's population. "Managment believes if it locates in a minority area, they're more likely to be organized (by unions) . . . If business doesn't want to locate in a minority area because they don't want to hire minorities, then we have to locate them someplace else or we lose them."

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2. In both states, these programs reflect increased emphasis by educators on training people for existing industrial jobs as opposed to providing broader education and skills. Program content lacks any relation to a set of priorities for determining the kind of training which might be most beneficial to an individual. The rationale is often: any jobs are better than no jobs, therefore any kind of training is better than no training.

Educational and business needs may sometimes overlap. But a businesses's immediate needs may not in many cases be consistent with training a person in a broad range of skills, which could give him or her a life-long possibility of job improvement.

For example, in negotiating with an electronics firm for a training program, Stanton Williams, the New Jobs director in Minnesota, was told the company was worried that trainees might be given *too many skills* and could then move on to better jobs. "They were minimum-wage jobs," said the director, "and they were worried they would lose their employees if they were over-trained. *We told them they would cotrol the program*, but they were still worried." (my emphasis) In this case the company decided against using the program.

3. Both state's programs raise questions about the use of funds from federal agencies to help individual states compete against one another. In addition, these programs contribute to the spiralling escalation of financial incentives that states offer industry.

According to Wes Cochrane, Assistant Commissioner of the Minnesota Department of Economic Development, the more other states provide subsidized training for industry, the more Minnesota must also provide such training. He cites the example of a Swedish ski manufacturer that had first committed itself to locating in Minnesota, then received offers of training subsidies in a number of other states. The company came back to Minnesota and asked if the state would match the training subsidies of the other states. "There was no New Jobs money available at the time," said Cochrane, "so the local AVTI (Area Vocational Training Institute) paid for instruction." CETA funds were also used to pay 50 percent of the trainees' wages for 26 weeks. Since the local AVTI didn't have enough of its own funds to subsidize the company's training, money was shifted to it from the programs of a local AVTI in another part of the state.

4. In some cases the use of job training funds appears to be an outright subsidy to industry as opposed to funds actually needed for job training.

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5. There has been no significant evidence from either these states or other national studies to demonstrate that the subsidized aspect of these programs plays a critical role in either expanding or maintaining jobs in a state.

Although public officials in both states claimed their particular job training programs help create new jobs, none were able to offer any independent evidence to support this hypothesis. What was offered were letters of endorsement by company officials stating that free job training was critical to their decision to expand. This tends to be self-congratulatory, rather than precise. One training program supervisor routinely asks participating companies for letters of endorsement. It is not surprising that firms receiving subsidies will support the programs that produce the subsidies.

On more extensive questioning officials and business people agreed that the training costs provided by the subsidies are not critical to a company's decision to relocate or expand jobs. What they did emphasize, however, was that subsidized training was an important gesture of gratitude and welcome. Kent Eklund, Director of Minnesota's Economic Development Department was more blunt in his evaluation. The incentives are "just fluff" for companies, he said, and are not significant economic factors in a company's location decisions. (For a fuller analysis of other studies of state financial incentives, I suggest the Committee review the complete National Institute of Education report.)

6. One of the most important questions raised by these programs is the nature of the role played by state education departments and educators. For the most part, they appear to be acting simply as conduits for moving state and federal funds to industry. In some cases they participate in the process of screening individuals for

the traits attractive to industry. These functions in fact involve little, if any, educational content.

The reason for having education departments involved appears to be to meet government requirements for distributing education funds; in effect, to be able to use funds earmarked for education purposes for industry training purposes. In South Carolina, a separate education department was created (the State Board for Comprehensive and Technical Education) for the purpose of training directly for industry. But to meet federal requirements for receiving education money, the new Board was set up to be officially part of the State Education Department. State officials acknowledge there is in fact little direct relation between the agencies and their purposes. Indeed, Tech Board and Tech College administrators take pride in their direct ties to industry and the lack of broad educational curricula in their programs.

"We don't just court them [industry]," said one Technical College Dean, "we marry them . . . We'll do anything that companies ask of us that we can possibly do."

A number of administrators stressed that even more emphasis would have to be placed on industry's needs in the future. They indicated that young people would have to be persuaded about the benefits of blue-collar work. Vocational administrators in South Carolina, citing cost considerations, are already considering shifting more education to the workplace.

Many educators involved in the special training programs expressed the belief that liberal arts education is simply not the function of vocational schools. Mel Johnson, Director of Program Improvement and Information for Minnesota's Division of Vocational and Technical Education, notes, for example, that there are no liberal arts taught in the programs he administers, and that the role of vocational programs is "training people to do a job and fit in, to take orders . . . If you then get a good job and you have cultural interests you can do it later. But if you're liberally educated in our society and don't have a job, you can't participate."

The increased use of education departments to provide special programs in which industry is effectively determining the entire program, from location, to content, to criteria for choosing suitable trainees, has profound implications for the future of state-supported education. These programs are leading to more limited and often segregated opportunities for education, training, and jobs.

Since funds for these special programs is made available to a community only *after* an industry has decided to locate in that community, their effect as a model future education would mean that many of the poorest rural communities would be bypassed. The effect of restricting access to training programs to the kind of people industry considers desirable will mean that residents whose racial and sexual characteristics don't fit industry's preferences can also be excluded.

The creation of education departments whose main function is the satisfaction of industry's *employment needs* is a serious digression from the purpose of public education. The words "employment needs" are stressed here because the role of educators has not simply degenerated from broad *education* to limited *training*, but even the training role has in many cases been superceded by a *screening* role.

The question of industry's influence over public education is an old and controversial one. In 1913, John Dewey advocated opposition against "every proposition, in whatever form advanced, to separate training of employees from training for citizenship, training of intelligence and character from narrow industrial efficiency." The enthusiasm with which some legislators and educators are adapting these special industrial programs could indicate a very different kind of educational opportunity than the programs that were the vision of the nation's public education advocates.

Chairman **Perkins**. The next witness is Mr. Earnest Palmer. Go ahead, Mr. Palmer. Identify yourself for the record.

STATEMENT OF EARNEST PALMER, SUPERINTENDENT, PERRY COUNTY BOARD OF EDUCATION, MARION, ALA.

Mr. **Palmer**. Thank you very much, Mr. Chairman.

I am Earnest Palmer, superintendent of schools, Perry County, Marion, Ala.

I come from an area called the Black Belt, which encompasses the central part of Alabama. It is called the Black Belt because of the soil; that is what the historians and scientists say. But it is difficult to go through the area, 17 counties of Alabama, and not notice that not only the soil is black, but the population is predominantly black. Characteristic of this Black Belt area are characteristics of things you find in other areas, those are instances of high poverty, low employment, restricted access to the decisionmaking process, and of course strained race relations. When we speak of rurality in the South, particularly in Alabama, we are using a term which goes beyond simple geography. It is more than just where a person lives, it is how a person lives, and it is also a term that cannot be defined as the opposite of urban. I heard someone today trying to address that issue. It relates to a sense of mind.

As we have previously noted, the Alabama Black Belt is both rural and predominantly black, and this combination of ethnicity and rurality has resulted in the creation of major problems, confrontations, and barriers to the growth and development of the region. No institution reflects the effects of these factors more than the elementary and secondary schools of the area.

First, the system of dual education and segregation, which has prevailed in the Black Belt, contributed much to the deemphasis of both quantitative and qualitative educational offering for black students. The restrictions and limitations were justified by the fact that the social order of that day did not provide access to careers and occupations without respect to race.

Dissatisfaction with farm life was reason enough for blacks to leave the Black Belt on a large scale, to assume residencies in the major urban cities. They arrived with no salable skills, low self-esteem, and functionally illiterate to enter the so-called world of work and to do a suitable job of earning a life for themselves and their families. We find the generation of those who left the area, those part of the outmigration, now returning to the South.

Concomitant to all these changes was the modification of national priorities in education, which required the emphasizing of training for entry-level-skill positions. Public schools urban, rural, and in-between were mandated to establish early career development and placement programs, apprenticeships, internships, co-ops, field experiences, et cetera.

Additional personnel were trained, new facilities were built; curricula revisions were made.

The legislative involvement of the Federal Government into vocational education in 1963 and 1976 represented the first meaningful steps in providing vocational training programs with some consideration given to those life conditions which could render the success of the program to little or no effect.

The implied powers of education provided as a responsibility of the State left a great deal to be desired in the Black Belt of Alabama. I would that you consider the following facts which represented general conditions in the rural Black Belt prior to 1975:

One, vocational programs at the elementary and secondary levels were generally restricted to home economics, agriculture, and business and office education;

Two, no secondary vocational facilities with multiple programs existed in the Black Belt prior to 1975;

Three, no provision was made for training students who may be classified as academically or economically disadvantaged;

Four, no provision was made for enrollment without sex bias;

Five. work experiences, job placement, and linkages with other agencies or employers were minimal;

Six, counseling services were restricted to advice on colleges and the armed forces, and not on the development of career plans or occupational experiences;

Seven, existing vocational program enrollments were not attributed to recruitment based on student interest, but as remedial instruction. In many instances many of the kids were placed in vocational programs as a remedial matter rather than progressing vocationally.

Although a few of these conditions were evident in some urban school districts, the conditions seemed almost universal in rural school districts, and only in recent years have there been significant steps taken to assure that compliance occurred. It has little to do with the efforts of the monitoring or assistance agencies at the State or Federal level, but rather the factor of rural ethnicity. In short, rural black students are just recently receiving the benefits of regular and supplementary vocational programs. Furthermore, unless categorical monitoring and supplementary funding continue, rural black students in the Alabama Black Belt will regress in vocational planning and training.

According to the Alabama State Plan for Vocational Education 1980-82, adopted June 14, 1979, several categorical program support areas would be eliminated without Federal funds due to the inadequacy of State fiscal support. They include: disadvantaged, handicapped, single heads of households, sex bias personnel, research, exemplary programs, and curricula. The problem is compounded in States like Alabama, where funds are currently under proration. State allocated funds have had to be strategically placed in program areas other than where Federal dollars have been utilized. This reassignment tends to result in small rural areas having State funds adequate only to meet basic State plan priorities. The fact is that it is demonstratively clear that qualitative vocational education is enhanced and sustained by categorical—and I emphasize that—Federal support.

The mandating of programs which encourage enrollment in vocational programs without sex bias has been received with mixed emotions in rural areas. Although there are still some schools which have all-male or all-female enrollments, there is a trend for more crossover. This mandate may prove of paramount benefit in the Alabama Black Belt where females outnumber males and where households are often headed by single females.

The continued emphasizing of non-sex-based enrollment would also add a new dimension to the role of women who choose to reside in rural areas, particularly minority women. The self-concept and personal esteem of females could be enhanced by the newly established vocational options provided through the categorical Federal funding.

The training of academically or economically disadvantaged students is an important idea and an important part of training in the Black Belt. The Black Belt of Alabama is unique in the sense that a significant portion of the population—90 percent—is classified as disadvantaged, academically or economically. This characteristic alone requires the impacting of funds beyond what is provided at the State and local levels to effect program comparability. It necessitates the use of nontraditional methods and materials and the provision of work experiences which may not be available in rural communities. Inherent in the programs for the disadvantaged is the "genius" of Federal vocational legislation. These mandates and the fiscal support tied to them sustain the efforts toward urban versus rural comparability in public education.

In summary, first, there is the necessity and urgency to expand and not curtail Federal vocational aid to public schools. Second, in addition, this assistance should consider the peculiar needs, and I underline peculiar needs, of areas with rural populations and which have inherent problems related directly to ethnicity or geography. There must be some consideration given to the establishment and maintenance of programs which reflect changing times and which do not restrict career access because of ethnicity or geography.

Chairman **Perkins**. Let me interrupt you. You are making a mighty fine witness, but I will call on Mr. Kildee to come sit in the chair. I have some visitors here from rural electrification.

Mr. **Kildee** [presiding]. Continue, Mr. Palmer.

Mr. **Palmer**. Third, Federal assistance should be designed to strengthen rural communities and the potential for rural communities to grow or develop. Vocational education funding is essential to capacity-building in rural communities and the link between learning and work. The capital that can be derived from direct State appropriations are simply not available. So what you end up with is a dearth of facilities available for people in our community to actually take advantage of the legislation provided by the Federal Government.

Fourth, Federal assistance must continue in the establishment of skill-based entrepreneurships, with experimental programs at the school level. I am talking about programs which are generated from the school level, that start early to put into the minds of people the idea of developing expertise and community capacity. This kind of support would foster the transition of rural communities from a static economy based on agriculture to more diversified career options.

We have heard a lot of talk about block grants versus categorical grants. I maintain today that the proposed block grants to States would not provide the needed guarantees to rural school districts of program stability, growth, and benefit. Leaving discretion of such funds exclusively to State government could leave school districts at the mercy of the power brokers.

The changing times are demanding times in rural public education. There is an accountability for individual and community development embedded in the foci of rural school programs.

The mandate to eliminate occupational attainment based on ethnicity and geography is imperative and must be considered part of the administration's commitment to rural education in the Black Belt and all of rural America.

Thank you very much. [Applause.]

Mr. **Kildee**. Thank you very much, Mr. Palmer; you have fans out there.

[The prepared statement of Earnest Palmer follows:]

PREPARED STATEMENT OF EARNEST L. PALMER, SUPERINTENDENT, PERRY COUNTY BOARD OF EDUCATION, MARION, ALA.

Superintendent Earnest L. Palmer is a native of Birmingham, Alabama and attended Stillman College, Livingston University, and the University of Alabama.

He has had extensive administrative and program development experiences in areas including: Adult Education, Ethnic Heritage, ESEA Title I, ESAA Basic, Pilot, and Human Relations, Vocational Education, Community Education, Arts and Humanities, and State and local government.

Palmer is currently serving on the Board of Directors of the National Rural Center and on the advisory board of the Alabama-Tombigbee Commission on the Aging and the Inter-governmental Personnel Committee for Alabama.

He has been superintendent of the Perry County (Alabama) Schools since 1979.

THE IMPACT OF FEDERAL LEGISLATION ON RURAL ETHNICITY IN VOCATIONAL PROGRAMS IN THE BACK BELT OF ALABAMA

There is an area of our great state which stretches from Pickens and Sumter counties across the mid section of Alabama to Bullock and Macon counties, known as the "Black Belt." Historians claim that this name is derived from the black fertile soil which dominates this area. However, those who observe closely, can not help but take notice of the predominance of Blacks who reside in the area.

Those who subscribe to the ethnic connotation for the region also conclude that the title is descriptive of the social, economic, and political life in the region. If "black" denotes poor or strained race relations, then the Black Belt typifies racial inequity; if "black" denotes high incidences of poverty and unemployment, then the Black Belt is properly named; if "black" denotes restricted or limited access to political decision-making, then the Black Belt is an excellent case study.

When we speak of rurality in the South and particularly in Alabama, we address a term that goes beyond simple geography. The neat and tidy "opposite of urban" definition will not hold here. The numbers game of more than 50,000 or less than 1,500 will not suffice as singular descriptions of rurality in the Black Belt. Rather it relates to a state of mind, a life perspective, a sense of community based upon strong family ties and tradition.

It is not unusual to hear an "urban resident" talk of getting away to "the country" or going "down home" either to visit or to stay. But the opposite can not be generally heard from rural residents. Neither are they overwhelmingly anxious for the city to come to the country in virtually any form. It is not to say that rural people are separatists nor harbor any prejudice against non-rural people. It is to say that there is the seldom-spoken, yet easily perceived, mandate to preserve, secure, and hold harmless the integrity of rurality.

As we have previously noted, the Alabama Black Belt is both rural and predominantly black and this combination of ethnicity and rurality has resulted in the creation of major problems, confrontations, and barriers to the growth and development of the region. No institution reflects the effects of these factors than the elementary and secondary schools of the area.

First, the system of duel education and segregation, which has prevailed in the Black Belt, contributed much to the deemphasis of both quantitative and qualitative educational offering for black students. The restrictions and limitations were justified by the fact that the social order of that day did not provide access to careers and occupations without respect to race. The Black schools were known as "training schools" or academies and did just that—trained most of the students for unskilled jobs with a minimum of emphasis on academics. yet, many of the white schools had no formal training program at the elementary-secondary school which addressed the issue of career planning or vocational development. The fact that local "industry" was farm-related provided further rationale for de-emphasizing vocational training on a large-scale except in agriculture.

Whites generally did not migrate, but stayed in the region to assume employment in family businesses or other local employment. On the other hand, dissatisfaction with farm life was reason enough for blacks to leave the Black Belt on a large scale to assume residencies in the major urban cities. They arrived with no saleable skills, low self-esteem, and functionally illiterate to enter the so-called world of work.

The advent of school desegregation resulted in (a) resegregation and (b) the provision of educational opportunity designed to enable Blacks to gain accessibility to the changing world of work. In virtually all of the Black Belt counties, whites left the elementary and secondary public schools for segregated academies. So-called "inferior" structures, which housed black students were closed and black students attended better equipped formerly white schools.

Concommittant to all these changes was the modification of national priorities in education, which required the emphasizing of training for entry level skill positions. Public schools urban, rural, and in-between were mandated to establish early career development and placement programs, apprenticeships, internships, co-ops, field experiences, etc.

Additional personnel were trained, new facilities were built; curricula revisions were made.

The legislative involvement of the federal government into vocational education in 1963 and 1976 represented the first meaningful steps in providing vocational training programs with some consideration given to those life conditions which could render the success of the program to little or no effect.

The implied powers of education provided as a responsibility of the state left a great deal to be desired in the Black Belt of Alabama. Consider the following facts which represented general conditions in the rural Black Belt prior to 1975:

(1) Vocational programs at the elementary and secondary levels were generally restricted to home economics, agriculture, and business and office education;

(2) No secondary vocational facilities with multiple programs, existed in the Black Belt prior to 1975;

(3) No provision was made for training students who may be classified as academically or economically disadvantaged;

(4) No provision was made for enrollment without sex bias;

(5) Work experiences, job placement and linkages with other agencies or employers were minimal;

(6) Counseling services were restricted to advice on colleges and the armed forces and not on the development of career plans or occupational experiences; and

(7) Existing vocational program enrollments were not attributed to recruitment based on student interest, but as remedial instruction.

Although a few of these conditions were evident in some urban school districts, the conditions seemed almost universal in rural school districts and only in recent years have there been significant steps taken to assure that compliance occured. It has little to do with the efforts of the monitoring or assistance agencies at the state or federal level, but rather the factor of rural ethnicity. In short, rural black students are just recently receiving the benefits of regular and supplementary vocational programs. Furthermore, unless categorical monitoring and supplementary funding continue, rural black students in the Alabama Black Belt will regress in vocational planning and training.

According to the Alabama State Plan for Vocational Education 1980–82, adopted June 14, 1979, several categorical program support areas would be eliminated due to the inadequacy of State fiscal support. They include: disadvantaged, handicapped, single heads of households, sex bias personnel, research, exemplary programs, and curricula. The problem is compounded in states like Alabama, where funds are currently, under proration. State allocated funds have had to be strategrically placed in program areas other than where federal dollars have been utilized. This reassignment tends to result in small rural areas having state funds adequate only to meet basic plan priorities. The fact is that it is demonstratively clear that qualitative vocational education is enhanced and sustained by categorical federal support.

An evaluation of the aforementioned conditions in light of current and proposed legislative mandates would amplify these needs.

Curricula.—Secondary vocational curricula (except in area vocational schools) do not provide for specialization nor diversification for students. If program diversity would receive greater emphasis, it could result in the attainment of entry level skills in competitive occupations which are non-traditional for females. the period of time spent on a given unit may be determined by the interest of the teacher rather than the student.

Facilities.—Vocational facilities tend to require more in terms of space and equipment than the other school buildings. Capital outlay in the physical plant can severely burden the budgets of rural school districts with a low tax base and minimal state support. Yet, rural school districts are expected to provide the same caliber of program as urban districts.

Non sex-biased enrollment.—The mandating of programs which encourage enrollment in vocational programs without sex-bias has been received with mixed emotions in rural areas. Although, there are still some schools which have all-male or all-female enrollments, there is a trend for more cross-over. This mandate may prove of paramount benefit in the Alabama Black Belt were females outnumber males and where households are often headed by single females.

The continued emphasizing of non sex-biased enrollment would also add a new dimension to the role of women who choose to reside in rural areas, particularly minority women. The self-concept and personal esteem of females could be enhanced by the newly established vocational options provided through the categorical federal funding.

The training of academically or economically disadvantaged students.—The Black Belt of Alabama is unique in the sense that a significant portion of the population (90%) is classified as disadvantaged, academically, or economically. This characteristic alone, requires the impacting of funds beyond what is provided at the state and local levels to effect program comparability. It necessitates the use of non-traditional methods and materials and the provision of work experiences which may not be available in rural communities. Inherent in the programs for the disadvantaged is the "genius" of federal vocational legislation. These mandates and the fiscal support linked, therewith, sustain the efforts toward urban vs. rural comparability in public education.

Agency linkages and vocational counseling.—The success of any education program is measured by the level of broadbased support it can muster and how this support may facilitate the acquisition of skills in students. The success of programs in the Black Belt may well be attributed to this factor. With instructional personnel committed to classes, it is often the vocational counselor who is responsible for retrieving program support.

We must not fail to be assured that enrollment in vocational programs does not imply academic inability which was the inference prior to 1972. There are still a few vestiges of public education which attach some "stigma" to vocational course enrollment, but these cases are outweighed by school district administrators and program directors who actively thwart efforts to "track" students—particularly minority students. The fact that federal legislation is involved has instilled the motivation into most school districts to assist students in this area.

In summary, (1) there is the necessity and urgency to expand and not curtail federal vocational aid to public schools. (2) In addition, this assistance should consider the peculiar needs of areas with rural populations and which have inherent problems related directly to ethnicity. There must be some consideration given to the establishment and maintenance of programs which reflect changing times and which do not restrict career access because of ethnicity or geography. (3) Federal assistance should be designed to strengthen rural communities and the potential for rural communities to grow or develop. Vocational education funding is essential to capacity-building in rural communities and the link between learning and work. (4) Federal assistance must continue in the establishment of skill-based entreperneurships, with experimental programs at the school level. This kind of support would foster the transition of rural communities from a static economy based on agriculture to more diversified career options.

The proposed "block grants" to states would not provide the needed guarantees to rural school districts of program stability, growth, and benefit. Leaving discretion of such funds exclusively to state government could leave school districts at the mercy of the "power brokers."

The changing times are demanding times in rural public education. There is an accountability for individual and community development embedded in the foci of rural school programs.

The mandates to eliminate occupational attainment based on ethnicity and geography is imperative and must be considered part of the Administration's committment to rural education in the Black Belt and all of Rural America.

Mr. **Kildee**. Our next witness will be Dr. Garrison, Dr. Don Garrison, president, Tri-County Technical College, Pendleton, S.C.

STATEMENT OF DON GARRISON, PRESIDENT, TRI-COUNTY TECHNICAL COLLEGE, PENDLETON, S.C.

Dr. **Garrison**. Thank you, Mr. Chairman.

I, too, am grateful to provide testimony to this very important committee. At the onset, I thank you and the committee for the tremendous support you have given to vocational, technical, occupational education since 1963. This is certainly a critical area of education and one that has not always been very popular as a segment of our educational system in America. It seems as we all look at our own background, when we came along, that the important factor was to get the baccalaureate degree, that was the key to success, the sheepskin. That is not always so today, and particularly as we move on through the decades of the eighties and nineties.

I would request my written testimony be introduced and made a part of the record.

I am president of a 2-year technical college in South Carolina, in a rural area—we do not think of ourselves as being rural, but as to New York.

I come also as a member of the executive committee of the board of directors of the American Association of Community Junior Colleges, chairman of the Council for Occupational Education of the AACJC, a program that has taken the products that have been developed by tremendous defense expenditures for training purposes and converts those to use in the private sector. Also I serve on our State Advisory Council for vocational education.

So as president of this college, serving an area that comprises, really, one-half of South Carolina's Appalachian regional South Carolina area, I feel I have a real good handle on the issues that we are addressing here in America today as we look to the future in resolving many of our problems.

The area I serve in is a growing area. It is a little bit different than the kind of area Congressman Watkins described in Oklahoma. Our economy is strong, it is growing, and I think if you take a look at what is happening in the rural areas of South Carolina since 1961 you will see they develop very favorably, and that has not been by accident. We were created, the system I serve, and I think I can speak for that system better than anybody here today, since I have devoted 16 years of my life to that system, but we were created as an economic tool. The greatest resource we have in our State or that you have in New York, Idaho, or Montana or whatever, the greatest resource you have, fully considering the natural resources, is the resource of the people, and our young people, the black and white young people were outmigrating the State in the fifties and sixties in great numbers. We wanted to create jobs. When we started to move into the corporate centers of industry, the first question we were asked was "Are the people trained?" and the answer had to be no at that time. All we were doing was operating some programs strong in agriculture, strong in home economics, but other than that, we were building a few birdhouses and that was about it. That does not attract new industry. Now we think the key to a strong economy is jobs. Now you get into the supply-side economic theories here that I do not understand. I am not an economist. But this I do understand, if you have people with the American work ethic, they are willing to work and possess the skills they need, that is what the private sector is interested in, Mr. Craig. And as we see some of the programs the President hopefully will put in place, we will see investments put into place, stronger investments, I believe, put in by the private sector, not depending on the Government. There is a great temptation at this point to go off and take issue with earlier testimony here made by my friend to the left here; I think South Carolina has enough notoriety here with the Rita-John Jenrette episode. I hate to defend our State so strongly.

If the program in South Carolina is so bad as has been alluded and if it violates free enterprise principles and the freedoms we enjoy in America, then why have so many States including Massachusetts and groups from the Northeast Coalition visited our State, and why has Oklahoma visited our State and Delaware, and I can name them all, to look at what we have done and are doing and then go back and structure programs very similar.

I hope you saw on the evening news, Thursday evening of last week, the State director, Dr. Larry Blake, offer testimony to the very kind of job training that has been alluded to. But that was all that was covered.

One more point I would make, when industry captains visit us, as they go about looking for places to make investments, they always make this statement: "Well, I just do not see this kind of education where I come from," and many times I do not know where they come from, because they are incognito.

The temptation is great to use up my time this morning to dwell on that.

My remaining time will be devoted really to four areas that I will touch on briefly.

First, I hope I will enable you to better appreciate the role the 2-year colleges play in America in this business of vocational, technical, or occupational education.

Second, what the world is really like out there in the world of work and what changes are to come about and what must change if we are to be competitive in the world marketplace.

Then the national issues that we face in this country and touch on those and how this segment of education that I feel I represent this morning can respond to many of those, and then make some quick recommendations, if you please.

Now first recognizing the 2-year colleges; 2-year colleges in America are unique. They are American and they enrolled about 2 years ago more freshmen than senior colleges. Half of what these colleges do today is specifically job-related and job-structured programs. Your institution offers many specific programs. They also offer a good, strong element in education.

These colleges are in place located over a thousand strong, one operating in practically every congressional district in America. They represent a great American resource that can be used to a greater degree than it has been in the past in addressing some of our national problems.

Third, the job structure in America, the U.S. Office of Education several years ago in defining the job structure pointed out that 50 percent of the job opportunities in America require 2 years post-high school, occupational high school preparation. Twenty percent require secondary job preparation. Only 20 percent require a baccalaureate degree or better. And then about 5 percent require just a basic high school education.

It would be fine if we in secondary and postsecondary were providing a sufficient number of graduates to meet that need, but we are not. That is what the world of work is like. If these programs respond to the world of work, they have to be job-specific. By and large in the postsecondary sector they are.

The third point, national issues and so on, how can vocational education be used as a tool to respond to these?

There is no question that America needs to take a new initiative or a bold new thrust in developing our economy. A key to this of course is creation of jobs, and to be creative in the world marketplace, we will have to take on high technology for jobs to again respond to another national priority we have, and that is increasing our productivity.

We know Japan can generate a high number of new automobiles, manufacture those at a much higher rate than we can. Part of the reason for this is their work ethic, and next their use of robotics, which is high technology. We have a new plant in our State which will manufacture industrial robots. Increased productivity is a key and always requires a very sophisticated technician to man, operate, and repair and maintain. Only by increasing our productivity, and to do that we must reindustrialize, and to do that we must retrain people.

At the college I represent, we have around 27,000 people enrolled in occupational specific programs, annually. In addition to that we serve about 13,000 to 14,000 adults in in-plant training. The industry pays for that. Our textile industry, they are reindustrializing with equipment they have to buy in Germany, Switzerland, or Belgium, because in order to compete in the marketplace, they had to buy equipment from some other place. But it is high technology and does require retraining, and we are doing that. There are energy-related problems we have created in South Carolina. Since 1961, over 60,000 jobs with $13 billion in new risk capital investment.

So that, I submit, is the second point where occupational education is important. It is important in the secondary sector and it is important equally in the postsecondary side.

Now I think that pretty much covers the concerns we all recognize in how vocational, technical, occupational education is responding today and can respond even greater with a little more recognition, with a little more incentive, and that leads me to the last part of my testimony here, which concerns our recommendations.

The first one I would offer is simply this: Add Federal dollars to vocational education, for gosh sakes, do not reduce them. This is not a rathole program, such as the CETA public service jobs. We have had as high as 40 of those jobs at our college and we have made winners out of those people and they are in permanent jobs. But that has been a stopgap measure.

When you put Federal dollars in vocational education, then they pay out in a hurry. In our State, we know in 28 months, every technical graduate will pay in taxes the amount the State invested in them. Consider vocational, technical education as a very critical part, today, in particular of our education system.

Another recommendation is a single State agency. Now I have many friends here who pretty much represent the postsecondary side and I hope a lot of friends who represent the postsecondary side here, and they believe in the secondary side, of the role of the postsecondary people. But we need greater representation on the State agencies; that is, a 2-year-college group.

In fact, I question the single-State-agency concept. I would prefer, personally, and I know I speak for my colleagues who are on the Council for Occupational Education of the AACJC, that we would like a better piece of the action. We would like to see a little more equality to the postsecondary segment. Rather than beat that drum, I will leave that thought with you and you can question it later. If we get equity, then we would come off with the 30 percent set-aside rather than the 15 percent. We will take either, but we prefer being treated equitably. We are serving 14,000 adults in this fiscal year and the majority of those are occupational-specific, where the State provides operational funds for it. That is not the case in all States.

We would like to see the VEDS program overhauled so that it does recognize postsecondary terminology and measures of productivity. I recognize there has been some change in that and we are thankful for that, but it did not go far enough. That really needs to be overhauled, as far as the postsecondary is concerned, and come to grips with what is going on in this decade.

Simply stated, we would like greater recognition of the contribution that postsecondary education is making and can make, and particularly as we look at increased productivity, and industrialization of America.

There is one other point; then I will rest my case.

Farmers are at the rural American place. One of the major industries in our State has been agriculture. It always has been, and we think it always will be. We think one of the key vertebrae if you please in the backbone of America is the American farmer. Now that American farmer is going out of business, particularly the small ones. Many are going out of business because they are not able to manage with modern management tools, such as microprocessors. This problem as brought to me by our chairman of the Senate Education Committee and by the professor in the Agriculture Extension Council and by a professional agriculture teacher is that there is a great retraining need for the farmer just as there is for the textile worker who will have to do his job quite differently as a result of the high-speed technology and high-speed machinery that is there.

Somehow that has to be looked at and addressed as you look at the Vocational Education Act of 1963. It is a different world out there. It must be recognized. Food will probably be in the next 5 or 6 years just as high a priority or national concern as energy. They kind of go hand in hand, as we all know. But I just request that maybe the committee would consider inviting a few agriculture teachers to zero in on this particular concern and maybe some of the university extension agricultural professors.

I hope I have not overutilized what little time was available.

Mr. KILDEE. Thank you.

[The prepared statement of Dr. Don Garrison follows:]

PREPARED STATEMENT OF DR. DON C. GARRISON, PRESIDENT, TRI-COUNTY TECHNICAL COLLEGE, PENDLETON, S.C.

Mr. Chairman and other distinguished members of this subcommittee of the U.S. House of Representatives Committee on Education and Labor, I am most grateful to offer testimony to this body which is most critical to the segment of our American education system that prepares graduates to fill the 75 percent of the jobs identified some time ago by the Office of Education as requiring either secondary or two-year postsecondary vocational, technical or occupational education.

I come before you as president of one of South Carolina's 16 two-year technical colleges. The college serves a 2,000-square-mile area with 240,000 people in it. It's an area which can be classified as rural. I also come as a member of the executive committee of the board of directors of the American Association of Community Junior Colleges, chairman of the Council of Occupational Education of the AACJC, secretary of the board of directors of the Aerospace Education Foundation of the Air Force Association and as a member of the South Carolina Advisory Council for Vocational Technical Education. I believe my many years of daily experience at the grassroots, rural-community level while serving on State and national boards and councils gives me understanding and appreciation of our common problems and frustrations relative to the many elements of the Vocational Education Act. I would be remiss, however, Mr. Chairman, if at this point I failed to express appreciation to you on behalf of so many who, like myself, labor daily for vocational technical education to conduct and manage programs which respond to students and the communities across America. We all thank you as best we can and know how by doing the very best we can to do a good job daily.

Never, in the history of our great country has vocational technical education been of the critical importance that it is *now*! American industry, as all agree, must reindustrialize and embrace advanced high-technology equipment. One critical element to this end is the availability of highly skilled technicans. American productivity must increase now. There is no alternative if America is to be strong economically. Vocational-technical-occupational education which produces graduates armed with today's skills—skills obtained from instructors up-to-date and equipment which is current—is an absolute must to make this happen.

Fifty percent of the job market today requires post-high school occupational education, the kind of preparation offered in the many, many varied engineering, industrial, allied health and business technology programs. It must be clearly understood that more than 50-percent of the students enrolled in the 1,000 plus American community and technical colleges today are enrolled in occupational curricula. Thousands and thousands are enrolled in courses which are designed for retraining and upgrading of people who are already employed. These numbers will go up. They are rising annually as more and more firms install and press into use new equipment which is controlled by microprocessors or is computer driven. This trend must and will accelerate as our economy improves, as the price of money comes down, and the private manufacturing sector invests even more heavily in new equipment to re-industrialize and become more productive and thus more competitive in the world marketplace.

It is of critical importance, Mr. Chairman, that you, your Subcommittee on Elementary, Secondary and Vocational Education, the House Labor and Education Committee and both Houses of Congress, as well as the President, understand and clearly recognize the unique role of two-year postsecondary institutions in addressing training and human development needs of the nation and the communities we serve.

If ever there was an educational program which stands justified and in the national interest, it is postsecondary occupational education. Today's American job structure, productivity, economy and, yes, national security interests are directly related to the degree to which this area of education delivers the goods in fulfilling our local, state and national mandate. Community and technical colleges represent a resource of immeasurable value to be relied upon as our nation now addresses critical priority goals of improvement—energy independence, improvement of our military strength, economic development, reindustrialization and employment needs of individuals and special target groups. These two-year colleges, over one thousand in number, are located in almost every congressional district in America. These colleges serving at the grassroots community level operate daily where the actions is, where the people live and work and where the wheels of industry and commerce spin. They, therefore, just must be recognized and be equitably funded through the Vocational Education Act for the contribution they have made, are making, and will make to resolve national goals which are derived from state and local goals and concerns.

Leaders in the community/technical college field and the Council for Occupational Education of AACJC, which I represent, literally cry out for recognition from Washington for the job we are doing, for the output we are achieving. We urge the Congress to extend this recognition by granting equity to postsecondary occupational education in the American two-year community-technical colleges, equity, we believe, is the key to insuring that we get a fair share of the Vocational Education Act dollar. There is no question that the hundreds of postsecondary technical/

occupational programs and those continuing education programs involved in upgrading, updating, and retraining adults for jobs are serving millions of Americans.

Recognizing these points, a logical question which evolves then is what do we community/technical college people recommend or see as solutions to our problems with the Vocational Education Act.

The following statement of the number problems, in logical order, and our recommended solutions are respectfully submitted to the committee, Mr. Chairman, for your careful consideration and for future action as you revise the Vocational Education Act and move its reauthorization.

Problem Statement No. 1.—The requirement that each state designate a single state agency for program administration fails to include in some states equitable two-year college representation. In many states, my own state of South Carolina included, two-year colleges must have their priorities and programs approved by the state board of education which has administrative responsibilities for only elementary, secondary and limited adult education. Under the existing act, these state boards of education must and do operate as the sole state board for vocational education?

Recommended solution. The act should be changed to require states to designate a board to be responsible for program administration for elementary and secondary schools and a board to be responsible for program administration of community and technical colleges, provisions for administration of funds should also be specified and require that funds be disbursed on an equitable basis incorporating productivity measures which are carefully delineated.

Problem Statement No. 2.—The present statute specifies a 15 percent set aside for adult/postsecondary students enrolled in postsecondary institutions. This criterion and the limited amount set aside, however, fails to recognize the decline in elementary and secondary education, and it also fails to recognize that approximately 92 percent of occupational education in postsecondary institutions is occupationally specific and is particularly strong in such fields as health and technical programs which are much more expensive to operate. The criterion and the set aside amount simply fail to recognize current needs and trends and, indeed, the major contribution that community and technical colleges are making to the provision of occupational skills for those students beyond high school.

Recommended solution. We recommend that the present act be changed to provide that a state's portion of its allotment each fiscal year be no less than 30 percent to meet the needs of students enrolled in postsecondary institutions or that allocations be disbursed on an equitable basis incorporating a formula which defines very carefully age groups served by secondary and postsecondary institutions, respectively. We urge that such a formula be based upon or incorporate criteria which are specific, measurable, output-oriented, accountable and sufficiently precise so as not to be left to State or Federal bureaucratic interpretation.

Problem Statement No. 3.—The Vocational Education Data System, more popularly known as VEDS, forces community and technical colleges into reporting data which fails to recognize the distinct differences between secondary and postsecondary vocational delivery systems. The data which is reported, therefore, is in most cases meaningless, inaccurate, incomplete and misleading. Substantial dollars have already been expended in developing the VEDS and invalid, unreliable and misleading data is being aggregated at the State and national levels. Decisions will obviously be made which are based on analysis of this costly false data.

Recommended solution. We recommend that the VEDS criteria, definitions, etc., relating to postsecondary occupational education be based upon accepted common practices in postsecondary occupational educational programs and that personnel who have expertise regarding design and maintenance of data bases in postsecondary institutions be utilized in overhauling the present system. We further recommend that the extensive reporting burdens be reduced to absolute minimums while maintaining acceptable, specific output measures that are based upon productivity and accountability.

Problem Statement No. 4.—Technology is changing daily at a pace which is breathtaking. New jobs being developed require vocational or occupational curricula different from those in current operation. These new programs of instruction are at times cost prohibitive to develop. Existing vocational and occupational programs at the secondary and postsecondary level are in constant need of revision and updating. The need to update is also true for the faculty and instructors who teach and direct these programs. Federal vocational act funds support only activities that have new or special purposes.

Recommended solution. We recommend that an increased commitment be made toward updating and improving existing vocational occupational education programs and also toward developing new programs. The statute should be changed from a flat requirement that 20 percent of the State's funding be used for program improvement/support services and the change should permit State discretion in funding, with a minimum of 20 percent distributed equitably to secondary and postsecondary delivery systems in accordance with a formula incorporated in the act. These funds and the formula used to disburse them should also contain specific, measurable, productivity-oriented and accountable measures which, when applied, treat secondary vocational education and postsecondary occupational education equitably. We believe that this change will promote increased emphasis on program improvement and updating support services. State discretion regarding the use of equitably disbursed funds under this part will make it possible to improve the understanding of teachers, counselors and students concerning the job structure, opportunities and educational requirements. In-service needs, updating and retraining programs for existing teachers will promote greater State and local commitment to this most critical area.

Problem Statement No. 5.—The current vocational education act fails to clearly recognize and incorporate the role and, indeed, the major contribution to American life which postsecondary occupational programs administered by community and technical colleges are presently making and will make in the immediate future.

Recommended solution. We recommend that the vocational education act, upon revision, give clear recognition of the importance and necessity of postsecondary occupational educational programs which are administered by America's unique two-year postsecondary institutions in addressing the training, education and human development needs of the Nation and the communities we serve. We also recommend that positions within the Office of Vocational and Adult Education have an equitable representation of community and technical college people with recent two-year postsecondary operational experience. We further recommend that provisions be incorporated into the act whereby equitable community and technical college representation be achieved on the national advisory council for vocational/technical education and State advisory councils for vocational/technical education.

Mr. Chairman and members of the committee, there is one more point which I choose to address. This problem was brought to my attention by a university agriculture extension service professor and a high school agriculture teacher. Simply stated, the problem goes something like this. Food supply is moving at a runaway rate towards becoming our top national and world priority. American farms continue to diminish in number. It is becoming increasingly difficult for young people to raise the necessary capital to pursue farming as a life career. It is also becoming more and more difficult for the average farmer to operate at a profit and to stay in business. The farmer, therefore, must be an excellent manager to stay in business. The Farmer must use current management tools such as the computer and microprocessors to insure that he maintains accurate data measures and cost-effective procedures. The farmer, therefore, must change and utilize modern, high-technology management tools. This is just as true for the farmer as it is for the banker or industrial manufacturer. It is as important today, for example, that the farmer understand and use microprocessors as it was that he utilize the tractor instead of the mule 50 to 60 years ago. It is as important that the farmer becomes more productive, maintain accurate, necessary data to establish eligibility for capital investment loans, and be economically sound and strong, just as it is for any other sector of our American free enterprise system. Recognition of these upgrading and retraining needs and the fact that they can be addressed by university and community technical college agriculture faculty working with high school agriculture teachers at the community level will contribute significantly to reducing what was brought to my attention as a significant problem. I respectfully recommend, therefore, that you invite testimony from selected high school agriculture teachers and university and community/technical college agriculture teachers regarding more specifics of this significant need which has not been addressed apparently in other legislation.

In closing, Mr. Chairmen, I submit that I am well aware of the intense debate over the "set aside" question during the reauthorization hearing when the Vocational Education Act was last renewed. A more appropriate way to erase some of the inequities generated by the extremely low 15 percent set aside provision of the current act would be to simply establish a funding system that recongnizes secondary and postsecondary vocational education productivity measures as a means whereby state boards will allocate vocational education funds. Such a requirement would guarantee "equity."

The vital role of postsecondary occupational education as conducted by community colleges, technical colleges and institutes just must be recognized as you renew this crucial piece of legislation. We ask for 30 percent set aside but would be most pleased just to be given equity. We do urge you to treat secondary and postsecondary delivery systems equitably. I have used equity and equitably a number of times in this testimony. It occurs to me that this term may be understood or misunderstood, depending on the subject at hand or the background of the persons engaged in the dialogue. I define, therefore, for the purpose of this testimony equity as "a funding or allocation system whereby federal dollars made available under the provisions of the vocational education act flow to those schools and community-technical colleges within each State according to their productivity in programs recognized by the act." The present system of allocation stipulating the 15 percent set aside is not equitable when compared with productivity measures of actual student enrollment.

My final comment as a president of a rural technical community college, which is a part of a statewide system created as a tool for economic development, is that it makes good sense to invest Federal dollars in programs that have a high return of the investment. There has never been a better investment of Federal tax dollars than those placed in the Vocational Education Act. Secondary vocational education equals postsecondary occupational education in importance. In South Carolina we always sell and point to with great pride the 50 plus new and modern secondary vocational centers as well as the 16 technical colleges, when we deal with industrial prospects. We prepare people for jobs and jobs for people. It would be short-sighted and not in the best interest of America to do other than to increase, and certainly not reduce, the investiment of Federal dollars in a program which means so much to our country. This, in fact, has never been more important than now, a time when our country faces some of the greatest challenges ever in our Nation's history.

Mr. KILDEE. Our next witness will be John Moran, director, Research Coordinating Unit, Maine State Department of Education.

STATEMENT OF JOHN MORAN, DIRECTOR, RESEARCH COORDINATING UNIT, MAINE STATE DEPARTMENT OF EDUCATION

Mr. MORAN. Mr. Chairman and members of the committee, I am John Moran. I live in Readfield, Maine. I work for the Maine Department of Educational and Cultural Services. It is estimated that there are 15 million children ages 5 to 17 enrolled in rural schools. The Census Bureau estimates that one out of four Americans currently resides in open country, or a farm, or in a small town or village. Rural youth and adults constitute a large and important segment of our population.

The testimony I wish to give today has in part been stated at other times and places, but probably it has never been more important to repeat some of it than it is today.

Maine was recently designated as being the poorest State in the Nation by the Department of Commerce. The majority of our school districts and population is rural; most of our K-through-12 enrollment is rural, and our vocational educational enrollment is rural. Rural youth and adults constitute a large and important segment of our population in Maine and the populations of rural States in this country.

Recently, social theorists presented a case for our rural population to be seen as a minority group. In every case where minority status was declared, it was done so based on some form of differential treatment such as differential and unequal treatment—objects of collective discrimination—a corresponding dominant group—exclusion from full participation in the life of the society.

The argument for declaring rural folks as a minority is supported further by the observation that rural America is dominated by a larger urban sector and that one consequence of urban dominance has been for rural folks to resemble, in effect, a minority. Rural Americans suffer from problems of opportunity, achievement, attainment, services and stereotyping when contrasted with comparable urbanites.

Rural schools in general have consistently shown several common problems such as reducing student nonenrollment and absenteeism, recruiting highly competent teachers and administrators, providing special education and other specialized services, securing needed capital and operating funds, altering the historic patterns of low achievement in school, and compensating for the inherent isolation and population sparsity. In Maine many of our problems of educating rural youth are not dissimilar from those experienced in other rural States.

Our system of vocational education in Maine is designed around vocational centers and vocational regions. Students attending vocational regions are bused from outlying towns much further in distance from the principal source of delivery of vocational programs but may have available in their own secondary schools vocational courses sometimes unique to the area in which they live.

I would like to share with you in a brief way some of the problems in rural vocational education as well as recommendations for reducing or eliminating many of them.

We are a rural State and the most of our vocational enrollment live in rural communities, but we do not know much about them. What we do know is not based on very much hard evidence but comes from informed opinions. Because of that, it is recommended that the new Federal vocational legislation direct that a study of rural vocational education be completed and the results used to more appropriately address the conditions of life for rural residents.

Data is not routinely gathered at local, State, and Federal levels on rural youth enrolled in vocational education. This data could be valuable for local and State vocational education planning, the distribution of funds, and planning for economic development. It is recommended that the Congress include in the new legislation a requirement that data on rural populations and vocational programs be routinely collected at local, State, and Federal levels to identify a variety of social, economic, and human conditions which might be influenced by the kinds and diversity of vocational education programs.

Such national studies and local statistics would have an important use in local planning efforts. Rural vocational education in the future should be based on a comprehensive planning process involving all segments of the community.

It is recommended that any new Federal legislation should provide funds for rural communities to initiate a comprehensive local planning process which might examine local economic conditions, the relevance of existing vocational courses, look at the results of previous programing, explore community-based options, determine the kind of economic development desired, weigh the merits of rental versus construction of vocational facilities and contracting with local employers for vocational instruction.

Gentlemen, many students in our vocational programs are low achievers with low aspirations who need comprehensive counseling services at their home schools and continuing counseling support during their entire vocational sequence—without such support, students find themselves in courses they do not want, do not like, and become disruptive and in the end unemployable.

To assist students in making more accurate vocational education determinations, it is recommended that full-time vocational counselors be supported by the new legislation to assist sending school staff in improving the readiness of students to select and access vocational courses and to provide special assistance to alleviate the impediments to occupational success for various populations including the handicapped, women, and rural youth.

Because many youth who select vocational education come with differences in the basic skills and cannot succeed without these capabilities, compensatory education programs must be available and integrated with vocational instruction. I recommend that a program of compensatory services for youth in rural programs who lack basic reading and writing skills to participate fully in vocational programs be made available. These skills can best be gained in conjunction with the student's vocational preparation. The reading and math skills can be focused on the trade area, thus making the learning of these skills more meaningful for the student.

A planned and varied use of community-based organizations must be initiated, and a continuing use made of them during the entire vocational skill development period would serve to put the student's vocational program in proper perspective. It is recommended that a blending of school-based with worksite learning be required by the new legislation to make vocational education relevant for youth and to promote the use of the community as a place of learning.

Presently there are too few courses offered rurally that contribute to the local economy. This practice encourages rural migration. I recommend that the new vocational legislation specify that courses supported from Federal funds in rural vocational education programs should provide students with a broad base of diversified knowledge and skills necessary for employment and rural survival and such courses should reflect the natural economies of the area.

The blight and economic decline of our rural communities can be stopped. To do that, I recommend that business creation be a part of the new act. Entrepreneurial skills should be an integral part of the vocation preparation of rural youth and provide a very real test of the quality, appropriateness, and thoroughness of vocational training. The teaching of entrepreneurial skills would be a demonstration for students of the support and belief in rural development by vocational educators and would further permit our vocational school graduates to not only ask who am I going to work for but also who will I get to work for me.

There are specific additional costs for operating rural vocational programs due to economy of scale, economic conditions, and remoteness. It is recommended that the new legislation address these conditions in the formula so that extra weight might be given to them in distributing money to the States.

Staff development programs must be available to upgrade and retrain our vocational educators as the changing technology and national priorities have put them at a serious disadvantage in preparing youth for jobs in the future. I recommend that comprehensive staff development programs be initiated with teacher training institutions and supported from the Federal level to assist administrators, counselors, and teachers in renewing themselves and to better understand their roles in a rural context.

If our planning assessments and counseling services are to be job-market related, we need assistance from an arm of the Federal Government. It is recommended that the job service be directed to extend its services to regional vocational centers for the purpose of conducting labor market analyses, studying job trends, and providing counseling and placement of students on jobs. This job services/vocational school relationship should additionally produce a more coordinated program of services to rural youth.

Adult vocational education has been underrated and underfunded in the past. The full economic and social development of rural areas depends on how well we provide training, retraining, and upgrading programs, supplemented by counseling and placement services to all out-of-school adults. Adult vocational education programs are essential to the economic and social development of rural areas and should be promoted in the Federal legislation as an integral part of your efforts to revitalize our communities. Such programs must be made available during the daytime as well as evenings and weekends and in places accessible and suitable for adults.

Finally, research, demonstration, and planning funds were never more needed than now to support local planning and redirection of our total rural vocational effort. It is recommended that research, demonstration, and planning be continued in the new vocational education bill with the requirement that the States must present evidence of the use of the results in local and State vocational education programing.

A new well-considered vocation education act is one of the last, best hopes we have to breathe new life into rural areas in this country.

While there are a number of difficulties facing us in rural vocational education, many activities have been initiated, a system of delivery is in place, and the investment in Federal dollars has had a visible impact. While many major improvements in rural vocational education will come slowly, without Federal assistance, there is every reason to believe that few changes will occur anytime in the near future.

In your deliberations on the reauthorization of vocational education, I ask that you consider the many difficulties we have in providing quality vocational programs to rural youth and in renewing the act, help us to make being born rurally no impediment to occupational and life success.

[The prepared statement of John Moran follows:]

PREPARED STATEMENT OF JOHN P. MORAN, DIRECTOR, RESEARCH COORDINATING UNIT, MAINE STATE DEPARTMENT OF EDUCATION

I live and work in Maine and am employed by the Maine State Department of Education and Cultural Services. My professional experiences span 24 years in public education where I have worked at the elementary and junior high school levels and for the State in the areas of adult education, staff development, research, demonstration, curriculum development and instructional planning. The last eight years were spent in curriculum development, instructional planning, research and demonstration in vocational education. I presently am attached to the office of the Commissioner of Education and am engaged in research, planning and evaluation.

I would first like to present a few statistics on rural youth and on rural schools in the United States.

There are approximately 25 million rural youth in America less than 25 years of age (88 percent of them white) out of a rural population of 53.8 million. In 1975 there were 15 million children ages 5-17 enrolled in rural schools. Twenty-two percent of all children enrolled in public schools are enrolled in rural schools. The Census Bureau estimates that one out of four Americans currently resides in open country, or a farm, or in a small town or village. From these few statistics, one can readily gather that rural youth and adults constitute a large and important segment of our population.

Recently, social theorists have made a case for our rural population to be seen as a minority group. In every case where minority status was declared, it was done so based on some form of differential treatment such as differential and unequal treatment . . . objects of collective discrimination . . . a corresponding dominant group . . . exclusion from full participation in the life of the society.

The argument for declaring rural folks as a minority is supported further by the observation that rural America is dominated by a larger urban sector and that one sequence of urban dominance has been for rural folks to resemble, in effect, a minority. Rural Americans suffer from problems of opportunity, achievement, attainment, services and stereotyping when contrasted with comparable urbanites.

Rural folks experience a sharply different economic and occupational structure than people in urban settings. The rural economy centers around agricultural production and services which support such production while the urban economy is extremely diversified with a wider range of goods and services.

At the individual level, these varying occupational structures may have negative implications for rural youth in their competition for available jobs in urban areas. Migration as a type of social behavior is a disparity factor in and of itself because it represents a difficult and disruptive prerequisite for rural youth seeking employment but not for urban youth.

If one examines the 1980 census data, it can be seen that rural areas are growing more rapidly than urban areas. This reversal in population trends makes current vocational policies of forcing out-migration of youth by the nature of course offerings totally out of step with the lifestyle choices millions of Americans have made over the past decade.

Rural schools in general have consistently shown several common problems. For example, reducing student non-enrollment and absenteeism, recruiting highly competent teachers and administrators, providing special education and other specialized services, securing needed capital and operating funds, altering the historic patterns of low achievement in school, and compensating for the inherent isolation and population sparsity. In Maine, our problems of educating rural youth are little different from those experienced in other rural states and we attempted to solve them by centralizing our high schools and vocational schools.

Our system of vocational education in Maine is designed around vocational centers and vocational regions. The vocational centers are located near heavy concentrations of people (our cities) and courses in these centers reflect that location and the vocational regions are arranged around our rural areas and courses in these regions generally do not reflect that location. Students attending vocational centers are bused in from contiguous communities while students in vocational regions are bused in from outlying towns much further in distance from the principal source of delivery of vocational programs. Additionally, students attending vocational regions may have available in their own secondary schools vocational courses sometimes unique to the area in which they live.

I would like to share with you some of the difficulties encountered in operating rural vocational programs which the vocational legislation should address.

ENROLLMENTS

Vocational schools in rural areas tend to enroll an inordinate number of low achievers. Students with academic difficulties are given counseling to join a vocational program which is seen as "more commensurate with their abilities" by local school staff. Academically, underachievers often use such counseling to find relief from their home school situations. Disruptive students are also encouraged to explore a vocational program as a way to ease discipline problems in the home school. There is evidence that some of the disruptive behavior is ameliorated during the student's stay in vocational education.

Enrollment in rural vocational programs tend to be largely male. Rural parents tend not to encourage their daughters to participate in traditionally male courses. Handicapped adults are generally not seen in prestigious positions in rural communities which discourages handicapped youth from joining vocational programs due to the absence of role models. The handicapped are further hindered by their feelings about their handicaps and the absence of encouragement by their parents and school staff. The enrollment in regional centers tend to come from students residing near the vocational facility while students from communities more distant from the facility tend not to be represented in the enrollment.

INAPPROPRIATE COURSES

Many courses offered in rural vocational programs are not representative of the local economy. Instead, the list of courses in rural vocational programs are patterned after urban vocational offerings. Such courses are those which require that students leave their home communities to locate employment after graduation. This practice assures the continued blight and economic decline of rural areas and the out-migration of not only prospective employees but potential employers.

Urban courses such as computer programming, machine tool and electronics tend to be foreign courses to rural youth as they have not had prior exposure to the jargon of these trades and no experience with the tools and equipment of such trades. Rural students do not have any community models to assist them in identifying with such trade areas as employment in these trades are generally found in the large population centers.

Some of the reasons why certain vocational offerings are located in rural areas tend to be related to the experiences of the administrators of the school as the cause. Administrators of vocational programs administrate based on their schooling experiences, job experiences and geographical upbringing.

The dilemma many vocational administrators are faced with is that to close a particular course and begin another is many times more expensive than can be afforded. The only real option then, is to continue operating existing courses.

INABILITY TO ATTRACT COMPETENT VOCATIONAL EDUCATORS

Many vocational educators are recruited directly from the trades without experience in the classrooms and in many instances without a vocational technical or college background. Classrooms are foreign places to most craftsmen who only remember that which they experienced in such situations when they were in school. Naturally, then, they tend to teach the way they were taught.

Rural vocational teachers generally live and work far from upgrading experiences and tend further to be remote from where they can observe and gather new knowledge about their trade areas which, as stated earlier, are patterned after urban trades.

Curriculum planning and instructional plans are not used in many classrooms in rural settings making management of course content and the classroom environment very difficult, if not impossible.

INADEQUATE COUNSELING SERVICES

Rural settings limited opportunities for students wishing to select vocational courses and to make such choices based on knowledge, experience and understanding. Comprehensive prevocational opportunities are unavailable to assist students in making their vocational selections. Considering that many vocational offerings have urban origins leaves one to wonder little at the reason students find it difficult to make a lasting vocational choice in their sophomore year.

Without career awareness, career understanding and occupational try-ons, students have little on which to base their vocational choices. Professional counseling in many vocational schools is not available and is frequently done by individuals who are called pupil personnel coordinators. These staff members additionally act as assistant administrators.

JOB PLACEMENT SERVICES

Most job placement is done by vocational classroom teachers when time is available. There are seldom any comprehensive, methodical, on-going programs of job development, placement and follow-up for vocational students.

Many vocational students have not had an opportunity to make job market contacts during the course of their training prior to graduation. Without such important industrial and business contacts during the training period, students must fend for themselves after graduation. For rurally educated students, the lack of such employment contacts assures that they either seek employment outside of the area of their training in their home towns or move to urban areas where they compete against an age group with more experience and more exposure to the jobs available. Such migration by rural youth is a disparity factor in and of itself because it represents a difficult and disruptive prerequisite for them while seeking employment. Rural youth must cope with what may be a new and strange urban environment while competing for a job.

A vocational education strategy geared toward producing rural migrants is not only bad policy but also a cruel deception.

VOCATIONAL FACILITIES

Vocational facilities in rural areas tend to be constructed in areas remote from many of the communities they serve. This has the effect of alienating those on whose support vocational education depends. Parents find it difficult to identify with a vocational institution that is administered by people outside of their own local school system. Vocational buildings many times are constructed for specific courses which keeps such courses in the vocational curriculum beyond the time when they should be phased down.

TRANSPORTATION

Transportation is at the heart of regional vocational programs. Without busing, there would be limited student enrollment. In light of rising energy costs, regional vocational facilities must continue to bus students which drastically increases the cost of vocational education for rural areas. Busing has traditionally been the solution to providing access to rural vocational education programs and that may soon be prohibitively expensive.

The pattern of scheduling in vocational education causes sending schools to bus students on round-trips four times per day, five days per week, to the regional facility.

SCHEDULING

Most vocational scheduling brings two groups of students to the regional facility twice per day, five days per week. Students in each group stay for two hours, less the time for getting tools out to begin classes and cleaning up at the close of classes. This schedule leaves no time for students to visit, observe, or try-on occupations in the community even when such trade related occupations are available.

There are many opportunities for creative vocational programming with new scheduling approaches thus saving time and money and opening up possibilities for students to obtain training in two trade areas.

The problems in rural vocational education in summary are:

Many rural vocational enrollees have low aspirations and tend to be low school achievers.

Courses offered in rural locations are not unique to rural areas.

Employment based on vocational training is many times unavailable in rural areas.

It is difficult to attract and hold vocational teachers with classroom experience.

Students are reluctant to leave their home high schools for vocational classes.

Rural youth have had little exposure to some trade areas prior to enrolling in vocational education.

Vocational course offerings are many times unfamiliar to females.

Costs for vocational education are high due to economy of scale.

Meaningful counseling services are not available.

Transportation costs are high.

Maintaining regional vocational facilities is financially difficult for rural communities.

RECOMMENDATIONS

The federal vocational legislation should direct that a study of rural vocational education be completed and the results used to more appropriately address the conditions of life for rural residents.

Data on rural populations and vocational programs should be routinely collected at local, state and federal levels to determine the social and economic conditions which might be influenced by the kinds and diversity of vocational education programs.

The federal legislation should provide funds for rural communities to initiate a comprehensive local planning process which might examine local economic conditions, the relevance of courses, results of previous programming, community based options, economic development, rental versus construction of vocational facilities and contracting for vocational instruction with local employers.

Full-time vocational counselors should be supported by the new legislation to assist sending school staff in improving the readiness of students to select and access vocational courses and to provide special assistance to alleviate the impediments to occupational success for the handicapped, women and rural youth.

The federal Act should support a comprehensive program of student assessment spanning a period of 6–12 weeks to aid the student in selecting a vocational sequence and the school in providing appropriate support counseling services directed at both the strengths and weaknesses of students.

A program of compensatory services are essential for youth in rural programs who lack basic reading and writing skills to participate fully in vocational programs. These skills can best be gained in conjunction with the student's vocational preparation.

A blending of school-based with work site learning should be encouraged by the new legislation to make vocational education relevant, to encourage contracting for training with local employers and to promote the use of community based learning.

The legislation should specify that courses supported from federal funds in rural vocational education programs should provide students with a broad base of diversified knowledge and skills necessary for employment and rural survival and such courses should reflect the natural economies of the area.

Business creation should be a part of the new Act. Entrepreneurial skills should be an integral part of the vocation preparation of rural youth and provide a very real test of the quality, appropriateness and thoroughness of vocational training.

Comprehensive staff development programs must be supported from the federal level to assist administrators, counselors and teachers in better understanding their roles in a rural context.

There are specific additional costs for operating rural vocational programs due to economy of scale, economic conditions and remoteness which the federal legislation should address in the formula so that extra weight to such conditions might be given in distributing money to the states.

Summer use of vocational facilities must be encouraged by the new legislation to provide instruction in entrepreneurial skills and to plan and implement job try-ons and placement in community based organizations and in part-time and full-time employment situations.

Funds for the rental of vocational facilities and equipment should be made available from the federal level to permit the easy initiation and termination of courses and to reduce the need for busing students from remote communities to regional facilities where small course enrollments are present.

The Job Service should be directed to extend its services to regional vocational centers for the purpose of conducting labor market analyses, job trends, counseling and placement of students on jobs. This Job Service/Vocational School relationship should additionally produce a more coordinated program of services to rural youth.

Adult vocational education programs are essential to the economic and social development of rural areas and should be promoted in the federal legislation as an integral part of regular vocational programs and made available during the daytime as well as evenings and weekends and in places accessible and suitable for adults.

Research, demonstration and planning must be continued in the reauthorization bill with the requirment that evidence must be present of the use of the results in local and state vocational education programming.

CONCLUSION

While there are a number of difficulties facing us in rural vocational education, many activities have been initiated, a system of delivery is in place and the investment in federal dollars has had a visible impact. While many major improvements in rural vocational education will come slowly, without federal assistance there is every reason to believe that few changes will occur any time in the near future.

In your deliberations on the re-authorization of vocational education, I ask that you consider the many difficulties we have in providing quality vocational programs to rural youth and in amending the Act, help us to make being born rurally no impediment to occupational and life success.

COMMUNITY BASED LEARNING

Community based learning is a process through which any student, irrespective of sex, academic ability, vocational aspirations or past experiences can explore careers, gain occupational understanding or acquire vocational and academic skills. The process combines learning activities outside and within the school into a balanced, comprehensive, individualized program of instruction. Community based learning is an unpaid highly structural approach to performance-based, student centered learning which actively enlists the community in providing participants with relevant, basic academic, vocational and career skills. It is designed to provide the student with an experiential orientation to the world of work.

The CBL process requires that an orientation and assessment be completed on each student and based on the initial assessment, each student is required to select a tentative career interest which he/she explores. The student then must visit a resource site for specific purposes in the community where the career selected is available. After the resource site is visited, the student meets again with a learning coordinator to determine if the initial career selection was valid. If the career choice still has a high interest for the student, a project plan is developed based on what kinds of knowledges and understandings he/she wants to acquire.

The project plan is completed by the student and learning coordinator and must contain long and short term objectives and what activities will be completed. At this point, the student must take responsibility for determining where and with whom the learning activities will be completed, what resource materials will be needed, what uses will be made of the library and what other resource persons, places or institutions in the community will be used. The project plan must also state who will evaluate the project activities, what time frames will be followed, who will award credit and what products will result from having completed the plan.

The school will have on file a comprehensive list of community resources which have been completely analyzed for quick and ready reference for students wishing to explore occupations.

Transportation is usually arranged by the student, but some transportation options are generally available to students in the normal coming and going of school buses.

The school generally buys insurance which covers the students while they are studying in the community.

It should be stressed that a student may use Community Based Learning for any academic or vocational subject providing such a resource is available in the community.

Mr. **Kildee**. Thank you very much. I will recognize the chairman of this subcommittee who is also the chairman of the full Education and Labor Committee.

Would you care to make a few comments?

Chairman **Perkins**. Do you think it makes any sense to cut vocational eduction by 20 percent when President Reegan talks about reviving the economy? Do you care to comment?

Mr. **Moran**. It would reduce our instructional staff by 120. These staff members are engaged in teaching supplemental programs to help the handicapped and disadvantaged youth to be successful in our vocational programs and also are engaged in teaching some of the basic courses needed in our rural areas. So a cut of such magnitude would seriously impair the progress we have already made in rural vocational education.

Dr. **Garrison**. Mr. Chairman, I fully subscribe to the President's cost-cutting initiative, but I do think we need to look at priorities. The high priority is defense. I think the majority of Americans feel that way, that we should increase in defense expense. Vocational education is an investment that will pay back in Federal dollars substantially, and it is an investment which will directly respond to many of the issues we have such as reindustrialization, strengthening our economy, strengthening our national defense with the programs that we have in place working directly with the Army and the Air Force and so on.

So, I only have three positions funded at my college that I represent where I am president. They are positions for teachers in associate degrees programs, not in special schools programs, those programs are funded 100 percent with State money. But I would hate mighty bad to lose those three positions because they support programs which prepare people for jobs and in turn make jobs available for people.

Mr. **Palmer**. Mr. Chairman, rural areas are just beginning to see the daylight in terms of taking advantage of the vocational legislation. Now the talk about diminishing by any significant measurement, particularly 20 percent, is utterly ridiculous for areas from which I come.

For one thing, it assumes the States are going to be able in some way to take up the slack. In every instance in our State, the State has had to reassign the available dollars which are diminishing now in order to take up the so-called slack that exists. In 1 year, in 1979, they budgeted $236,000 in State funds for construction of new facilities. Because of proration, reduced sales taxes, and property reevaluations, they had to take that 236 and switch it to another category in order to assure compliance with the so-called maintenance-of-effort requirement.

It would severely punish, if you will, areas which have problems such as are indicative in the Black Belt of Alabama.

Mr. **Goodman**. I do not have any sense of comment on that. The only thing that seems to me important is that education dollars be used for education purposes. I think I have indicated in my testimony that it seems to me that is what the purpose of the vocational program should be. My own objection would be that the money be diverted to provide subsidies or other purposes.

Chairman **Perkins**. Thank you, Mr. Chairman.

Mr. **Kildee**. Thank you, Mr. Chairman.

Mr. Goodman, in your statement you point out a problem with federally funded training programs being used to screen out certain types of people who local industry does not want to employ. You mentioned those who perhaps might support collective bargaining. Can you suggest any possible changes in the authorization bill to minimize the use of that screening technique by potential employers?

Mr. **Goodman**. I think just stating it in the way you have stated it might be the way to do it, to make sure that it is not allowed.

Mr. **Kildee**. A clear prohibition?

Mr. **Goodman**. I think so. There are a lot of ways the Federal Government subsidizes training without directly putting it into a training program; for instance, Federal funds used to construct buildings in which training programs take place, it may be from some other Federal program, but in effect the training is taking place there, so it is in effect subsidizing those programs. So it seems it is not only in the vocational education programs but in a lot of other programs where one might want to have that prohibition.

Mr. **Kildee**. How overt would such practices be? Did you find this to be prevalent in your studies of South Carolina and Minnesota?

Mr. **Goodman**. In the situation I described it seemed quite clear that it was the intention of the program to use that as a benefit to industry. The program would give primarily to the needs of industry, and industry would decide, for example, where to locate the training programs. We have heard testimony this morning talking about the problem of getting training and education in certain rural areas of the country; I am sure the problem exists in urban areas, also.

The problem is, if industry is determining where the location of the programs will be and if these kind of programs become the model for the future, that is if these kind of programs become a quick and easy way to train people and they are so-called successes, and that is where all the education money goes, it would be then that industry is determining those groups of people who get the programs by where they locate their facilities.

It seems to me the education has to come first, take the priority, people have to be broadly trained to take advantage of a different number of opportunities and not limited to the direction of industry.

Mr. **Kildee**. Does anyone else wish to comment on that?

Dr. **Garrison**. I think we must make it clear that we are talking about different kinds of programs here. As I read the written testimony of Dr. Goodman, by and large he is talking about what we refer to in South Carolina as the special schools program. That program does not lead to an associate degree, it does not contain general education, it is totally designed to meet the need of an industry that is in the State, that is expanding, and which by expanding will create new jobs, or it is designed to meet the specifications of a new industry in the State so the trained work force will be ready when they need them.

I will give you a good example. About 10 years ago, General Electric made a decision to invest $50 million in risk capital in the county next door from where I serve.

They were manufacturing gas turbines with very sophisticated metalworking equipment. Just before they turned out their first gas turbine, a million-dollar product, they had about 1,000 people employed, 900 were trained and educated, educated in many of the associate degree programs we offer that are comparable to any in America that do contain a good general education component, and through the special needs program designed to meet the need of GE. They turned out the first gas turbine a year ahead of schedule. They were so pleased, they decided to expand to the tune of $50 million, and before that was completed, they decided to build another $50 million plant in Charleston, and before that was completed, they decided to build another $50 million plant in the PD section, the agricultural part.

Chairman **Perkins**. If the gentleman will yield, let me interrupt you for just a second.

When those companies made the decision to build, did you assure them they would have employees in place when they got ready for them?

Dr. **Garrison**. We are a right-to-work State and we will stand on that, hopefully forever. We believe in that; that is a factor. There are many factors related to this economic success development formula that we have, but availability of trained people and training programs to prepare those people for those specific jobs, there is absolutely no question about it. That is why they are there. We have this documented.

Mr. **Kildee**. Just for the record, of course, I come from a State which is not very often called a right-to-work State, and I like it the way we have it in my State.

Dr. Garrison. I am sure you do. That can be the uniqueness of America.

Mr. Kildee. We can debate that in another arena, perhaps.

Mr. Moran, in your statement you indicated the rural people constitute a minority in the country and therefore should be looked upon as minority with the problems minorities have.

Maybe my question will be directed to Dr. Palmer on this, but you both may want to comment. If the rural population constitutes a minority, then the black rural people in a sense would be a double minority, with some need to look at their special needs.

Mr. Palmer. If there is such a thing as a double minority, I guess you could say that could well be. In our particular place and in other parts of the South, there might be other minority groups.

The point I was trying to make is that ethnicity plays a part in that. The whole thing about GE coming into South Carolina and doing what they did, you do not have that kind of need felt on the part of the free enterprise system to go to an area, because there is a stigma, the myth of the region, the ethnicity factor, that causes industry to sort of move away, shy away.

As a result of that, we have a mandate to prepare our people for moving to where industry is. If industry chooses to move to Montgomery, Ala., which is to our east, or Birmingham, which is to our north, when we must prepare the young people who are capable of utilizing basic skills who are mobile enough to go to those areas. I maintain without programs geared for minority groups and women, the capacity for administrators and school districts like ours to do the job, the capacity is thrown away. There is no opportunity to serve, if you will. There is no need to serve. The fact that the Federal dollar is available and is geared and aimed toward sustaining efforts in particular segments of the community, and you can call it minority or nonminority, but particular segments, both ethnic and geographical, that mandate in and of itself will bring our society into a closer relationship and will provide mobility of people from the rural to the urban without them feeling they are restricted simply by geography or ethnicity.

Mr. Kildee. Mr. Moran.

Mr. Moran. I do not want to detract from the efforts of designated minorities, but I want to say, growing up rurally is difficult. During my eighth year going from a one-room schoolhouse to a community of 9,000, I discovered for the first time that I emitted an odor; it was a cow odor. In the rural area we all attended cows, so I smelled no differently, but when I attended the subsequent school, I discovered cows had an odor.

But rural folks do have conditions, stereotypes that put them in classes not unlike our designated racial minorities, and I think some kind of entertainment for services under those conditions ought to be given.

Mr. Palmer. May I give my anecdote to compare with that as a part of the minority report?

Mr. Kildee. Double minority.

Mr. Palmer. I was raised in an urban area which is as urban as you can get except for New York City, and I spent my last 15 years in a rural high school. In my high school which had 2,000 I thought everybody had courses in upholstery, carpentry, small engine repair, tailoring, art, computer programing, those kinds of things. Then after being thrown into a situation where this is something remote, something you read about, see on television, and the things people in those areas hear about when they go to the ABC conventions, it brings to your attention there is a harsh and obvious discrepancy, an obvious inequity, one that must be overcome if there is ever to be the kind of cohesiveness in society. So I think the same thing can hold true when you reverse the anecdote. My experience has gone just the opposite, but I think it does not diminish the need for this committee, this legislature to address the problem.

Mr. KILDEE. Thank you very much.

Mr. Jeffords.

Mr. JEFFORDS. Thank you very much, Mr. Chairman.

I am interested in fixing in my own mind the policy of rural education, and in that, I find myself somewhat confused. I have been on this committee when we wrote the legislation last time for bricklayers when we did not need bricklayers; for agriculture when agriculture was going downhill, et cetera. We have to get more specific; to train people for jobs that were available. Now Mr. Goodman feels we have gone too far the other way trying to attract industry in using it as a bargaining power. What I want to know is how you draw the line. What should be the basic function of vocational education in the rural areas? It seems to me we have to be relevant to jobs which are relevant in our society, but how specific do you get? Where do you end up with our antiquated educational equipment? Do we get into the high-technology society? I guess I am confused as to the kind of policy we direct and how we limit it and try to implement it. How do you reconcile, Mr. Goodman, your testimony with the others here?

Mr. GOODMAN. Well, I could also add to my testimony that in discussing with vocational educators, liberal educators, with business people, labor people, that the criteria they gave as the most important for someone to advance in a job was the ability to learn, and their fear was their skills would be too job-specific.

I also might add in another paper that was written for the National Institute of Education, the researcher brought up the fact that someone in South Carolina was being trained for a particular piece of machinery and equipment that only that company had.

As you say, there is a large range between training someone in a very specific way as opposed to training people in the broad manner so that they have no skills to apply to a job.

I can only point to a direction and that is that people should be trained to learn, and in doing that you do it for a variety of different jobs and industries. It certainly seems clear to me you do not do it by training someone for a specific job, because you do not know if that job will be there in 5 years. If you look at the job market over the last 5 years, the most relevant factor is that industry has moved, geographically and also in terms of where it has invested its money. To use that as a criterion seems to me important, that is you cannot train people to have a very specific job.

Mr. BIAGGI. Will the gentleman yield on that point?

Mr. JEFFORDS. Yes.

Mr. BIAGGI. I thank the gentleman for yielding. I was going to pose that question until my colleague posed the issue. Frankly, I see nothing wrong with that, because what we are doing is establishing a link and providing employment. To say it is for a specific job, that is fine. How would you train these fellows, to be generalists and not be competent for any specific thing? At least they are in the work market and while they are there, assume they are there for 5 years, they have made that transition, there is a development, there is an awareness, and their whole mentality becomes job-oriented, and if they see a possibility of this particular job being phased out, industry prepares you for a shift.

You talk about moving. Studies show people in rural areas are not inclined to move too readily. At least we get that first step.

You seem to suggest we should give them a general education, and I do not know how that fits in with vocational education, where the real thrust is to train them for actual job opportunities.

I think Dr. Garrison's experience with GE has been excellent. They may have done the exact same thing in this instance. If so, I say, more of it. I understand what you are saying, but what is the alternative?

Mr. GOODMAN. I taught for 6 years at Massachusetts Institute of Technology. I taught architects there. What I was concerned about and what a number of my colleagues were concerned about was what would happen 5 and 10 years afterward, what would the field be like?

Mr. BIAGGI. That is very lofty. But let us talk about the fellow really scratching for that first job. He has not made that initial threshold. Let him make the initial impact, then the world 10 or 15 years from now will be there for him. He may be on the right route. I do not quarrel with it, but yours is a lofty thinking.

Mr. GOODMAN. If I could bring it down to the nitty-gritty, I am not talking about people not being trained for jobs. My testimony is directed as to where education money should be spent. Traditionally industry has trained for their own jobs. If you train someone for a job on the assembly line, industry has traditionally done that on its own. The question is whether education funds which have been used to give people broad opportunity to move between jobs, to make choices, should be directed so specifically to specific jobs.

[EDITOR'S NOTE.—The followng letter was received from Robert Goodman:]

CENTER FOR THE STUDY OF PUBLIC POLICY,
Somerville, Mass., March 4, 1981.

DANA STEVENS,
Committee on Education and Labor,
Subcommittee on Elementary, Secondary, and Vocational Education,
Rayburn House Office Building, Washington, D.C.

DEAR. MS. STEVENS: I would like to add the following to my testimony given before the subcommittee on March 3, 1981. This should be added to the last remark I made after the last question posed to me by Representative Biaggi.

"A number of times during the hearings it's been stated that in the process of reindustrialization, we should stress private enterprise and private competition. The question I raise for the committee to consider, is whose enterprise and whose competition? The use of public education monies to help shift jobs between regions seems to me less a case of private risk taking and competition and more a case of the states as the entrepreneurs, competitors and risk takers."

Sincerely,

ROBERT GOODMAN.

Mr. **Biaggi**. I understand your question, and that is what education community was doing all these years, put all your money in general education and so on, but we found there was a need for vocational education. This program we are dealing with now is directly responsive to the needs of some hard-core disadvantaged and there is a shift, even the academics understand there is a shift, and there is a need for a shift, with the progress the 2-year colleges are making, and that is what we are talking about. You obviously are wedded to the previous notion. Well, I think there has been a change in times.

I thank the gentleman.

Mr. **Jeffords**. I think we have to somehow figure out the functions of vocational education. Whether it should be used to maintain jobs in the community, or whether it would be made appropriate for another programs such as CETA. Is it just purely the function of maintaining the economic base in the community and using our young people as tools of industry to try to attract industry there? If it gets to that extreme, it is bad. Is that what you are saying?

Mr. **Goodman**. That is exactly what I am saying. If you extrapolate from the present conditions and you take the model of these programs, what you find yourself doing is putting more of your education money into the job-specific programs, then using those job-specific programs as a way for States competing against each other for industries.

Mr. **Jeffords**. Springfield, Vt., used to be the home of the tool industry.

Most people who go into jobs there go into the tool industry. Is it wrong to yield its training toward the tool industry?

Charleston, S.C. is inviting the tool industry to move down there. Is it relevant for the community to go to the tooling people there and say, look, we will train your people, we will build a work force for you if you keep your plant in our area. Assuming there is no competition, is it wrong for the community to teach them how to operate machines?

Mr. **Goodman**. No, not given the assumptions you have made, that there is no competition. But even in that instance, the education industry wants to know what the industry will be like in the next 5 years.

Mr. **Jeffords**. When you enter competition, then does it become bad?

Mr. **Goodman**. I think it becomes bad. I would think you would need some kind of Federal limitation to restrict that competition. You can look at it in terms of education, how it has influenced education——

Mr. **Jeffords**. The legislation should prohibit Charleston, S.C., from trying to lure away industry using a training program?

Mr. **Goodman**. Yes. If I might make one other point. If you look at a national model of where money is being spent and you say communities all over the country have invested a certain amount of money in lots of public facilities, one of them being buildings and education programs, paying for teachers, et cetera, they have spent years building a capacity to train people. Then if you say you use the money to try to attract jobs from one place to another and that other parts of the country then have to build up the same capacity and the same education programs, what you are doing is having an enormous redundancy in the spending of funds.

Until you have a clear picture of the kind of jobs you want to train people for and the viability of the community—it would be absolutely absurd to use public funds to train for jobs when you know there are not enough jobs to go around to fill those positions.

Dr. **Garrison**. What we have been talking about here, just as a matter of general education, we do not put general education in our special schools program. If you were an industrial prospect in my office, I would say there are three things we will do for you: No. 1, through our special schools program we will prepare the workers you need to your specifications, your leadtime, so they will be available to you at no cost. Then we say, we do not divorce you at that point—that is not even funded in my budget; no Federal dollars can be used. That is the first thing we will do.

Then we say, the college stands here year after year doing two things for you, providing a continuing stream of occupational specifics in electronics. One graduate went out at $22,000. He moved out of the State, by the way. But we will prepare those graduates and——

Mr. **Jeffords**. You see nothing wrong with using vocational funds in that sense?

Dr. **Garrison**. No, sir. Because $13 million in new risk capital is the reason I say that, and not just jobs attracted from Snow Belt States.

A quick point: As an American, I feel the Sun Belt needs to be as strong as the Snow Belt economically, but there is nothing wrong with competition, which is one of the things that had made this country great.

We are having to compete——

Mr. **Jeffords**. I have to leave, so let me cut you short.

Do you think in the role of the Federal Government there ought to be any consideration given to wealthy States versus poor States in the utilization of those funds, and if allowed to be used, whether you should give bias to those not having difficulty in attracting business?

Dr. **Garrison**. My personal conviction is you have to treat all Americans with equity. I know that is a very simplistic answer.

Mr. **Palmer**. The answer is "Yes," I do think you need to give some consideration to those areas, not so much because of the area, but because of the people who make up that area. Not based on nationality, but on the fact they are American people who are trying to eke out an existence. First, I do not think legislation ought to get into that kind of thing, but if it does, I think there should be some consideration given to communities that have the potential to develop, and that would not develop because their nondevelopment is at the expense of larger States or as you call them, wealthier States, who provide a larger attraction base.

In addition to what you were asking moment ago——

Mr. **Biaggi**. What is a wealthy State?

Mr. **Jeffords**. Let us use for example Alaska, where you have a negative income tax, where you just file to get money back. Should we be giving money to them, versus New York?

Mr. **Biaggi**. How about the cost of living?

Mr. **Palmer**. One of the problems that has handicapped us in the past is that somebody came up with the brilliantly apt idea that we should be training people to be machinists at the elementary and secondary level. That kind of training should be an option at postsecondary and not something integral to secondary programs. That was what I thought he was alluding to when he was talking about general education. Being able to survive, being able to develop some inclination to explore the world of work, that is what we are about in the rural area. We are not up to sending someone out after his 12th year in school to become a journeyman mechanic. I think it is too much to ask a person from Boligee, Ala., population 336, 335 since I am here, to start moving toward an expertise that goes beyond their academic level.

Chairman **Perkins**. Mr. Biaggi, have you any questions?

Mr. **Biaggi**. I have several, but in the interest of time I will just ask one.

Reference has been made to the VEDS system.

Dr. **Garrison**. I am not as astute on this particular subject as I would like to be. But I do know insofar as postsecondary reporting is concerned, it is not structured to provide the kinds of measures that we keep, such as FTE's and CEU's, full-time equivalent enrollment versus average daily attendance. But then too, we have to report in so many ways to the Federal Government, then you overlay it with the VEDS, it is really a very expensive proposition.

If I recall accurately, in Miami, Dade Community College calculated the cost of operating the VEDS system there. I think the price tag they put on it was $1 million. It just does not lend itself to the postsecondary.

For example, a student may be enrolled in electronic engineering technology as a part-time student, and it is almost impossible to calculate. There were other people more qualified to testify on VEDS. But simply as an administrator or president I know this is a very expensive proposition to any 2-year college in America, particularly those strong in occupational education.

In fact, 50 percent of the enrollment in community colleges are enrolled in occupational associate degree programs.

Mr. **Biaggi**. My last question is, given the national focus on the health problems of our people, there seems to be increased needs for personnel. I know there is a terrible nurse shortage, licensed practical nurses and a host of other health-related occupations that could have a response through vocational education.

Dr. **Garrison**. We are initiating the associate degree program, but in the system we have about 35 to 40 occupationally allied health-specific programs ranging from dental hygienists, radiologists, right on down the line. It is an area where technology is changing just as much as in the manufacturing area. There is a need for strong support there. It has been addressed in some other acts——

Mr. **Biaggi**. How about the licensed practical nursing?

Dr. **Garrison**. We do not offer that. I might mention we have 50 brand new area vocational centers in our State serving primarily the secondary. Then with the 16 technical colleges, that is pretty good State response to that need. In practically all the area vocational centers, the LPN program is viewed as a secondary program as opposed to a postsecondary program.

Mr. **Biaggi.** That is a threshold occupation, and Dr. Goodman, our experience in New York is that after they have been in it for a while, they go back and become registered nurses, and there are several instances where they have gone back to school and have become doctors.

Mr. Palmer, will you respond to that question?

Mr. **Palmer.** The problem in our area is that it is difficult to find personnel to teach in the health area. Because of the shortages that exist, the persons normally teaching are restricted to employment in the hospitals and doctors' offices. What we find happening is a kid goes through some part of the vocational program then gets off into the vocational school program at the postsecondary level. He has to go someplace else. Usually in this case, 75 to 80 miles away.

Mr. **Biaggi.** That is shameful, because I think it is an opportunity without limit. It is a whole new field which compensates well.

Mr. **Palmer.** They also go 35 to 40 miles to see a doctor. It is an acute problem, and one which is just recently being addressed. We have three centers in the area, but with no one to man them. A negligible student enrollment.

Chairman **Perkins.** Mr. Craig.

Mr. **Craig.** Mr. Chairman, recognizing the lateness of the hour, I will be brief, and I think my colleagues on the committee have expressed my concern in relation to Mr. Goodman's testimony about entry and upward mobility and all of those kinds of things that are involved in the beginning of the process. I think that is what vocational education in some respect has to deal with, and it is critically important to deal with that question.

A brief question from the testimony of Mr. Moran. You made a conclusion that the proposed cuts would bring a loss of 150 people to Maine.

Mr. **Moran.** Correct.

Mr. **Craig.** I did some mental computation. I understand if your State is a typical State, about 9 to 10 percent of the money spent in your State for education are Federal dollars. We are not talking about a cut, but a negative movement in the growth pattern of Federal spending from 1981 to 1982, so that 9- to 10-percent reduction represents 1.8 percent. Does that represent 150 staff people in your State?

Mr. **Moran.** Approximately 110 in our postsecondary and secondary institution staff only.

Mr. **Craig.** How many staff do you have employed as vocational education in the State of Maine?

Mr. **Moran.** I do not have that figure.

Mr. **Craig.** If I follow the logical conclusion, you have over 660,000 people employed in staff positions.

Mr. **Moran.** I wish I had that many.

Mr. **Craig.** It seems awfully high.

Mr. **Moran.** We are talking about many who are part-time employees.

Mr. **Craig.** Thank you.

Chairman **Perkins**. Let me thank the entire panel. We appreciate your coming here. We appreciate your time and your excellent remarks. I think the remarks you gentlemen gave today will be most helpful to the full committee and to the other Members in the U.S. Congress when we consider the effect of the recommendations made by the administration. We will conduct hearings for several weeks off and on with a view of exploring thoroughly what will be the effect of these cuts if they go through. Naturally at the same time we want to do everything possible in the extension of the law to strengthen vocational education in every way we possibly can. You have been most helpful, and I hope to see you all again before the committee.

[Whereupon, at 12:20 p.m., the subcommittee was adjourned.]

[Appendix material referred to follows:]

APPENDIX #1

NATIONAL STUDY OF VOCATIONAL EDUCATION SYSTEMS AND FACILITIES

Executive Summary

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INSTITUTIONAL DEVELOPMENT ASSOCIATES, INC.
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EXECUTIVE SUMMARY

NATIONAL STUDY OF VOCATIONAL EDUCATION SYSTEMS AND FACILITIES

Study Objectives

The objectives of the "National Study of Vocational Education Systems and Facilities" were to:

- Describe the organization and governance of State and local agencies and delivery systems for vocational education.
- Describe the basic provisions by which the capital and operating costs of vocational education are funded.
- Describe the status and condition of the nation's vocational education system in terms of its capacity, its services, its accessibility to students, and the adequacy, condition, and level of utilization of its facility resources.

The requirements which these objectives imposed on the conduct of this study are discussed in the following topics.

Organization and Governance of Vocational Education

The effectiveness of Federal legislation in achieving its objectives is affected by the characteristics of the State and local agencies responsible for the administration of Federal funds and Federally funded vocational education programs. The impact which these agencies have on the effective expenditure of Federal funds cannot, however, be assessed until the organizational and operating characteristics of these agencies are understood.

Therefore, this study was designed to secure information about the principal organizational characteristics and operating policies and practices of the agencies and delivery systems through which vocational education is provided.

At the State level this study sought to: identify the agencies having responsibilities for vocational education and the location of these agencies in the State educational system; and examine the formal and informal relationships which exist between agencies relative to the planning and coordination of vocational education program development and the control and expenditure of Vocational Education Act funds.

At the local level, this study sought to provide information on: the organization and governance characteristics of local vocational education; and the operating characteristics of vocational education programs, especially shared-time programs and inter-institutional arrangements which impact on the use of vocational education facilities.

Financing Vocational Education

The effectiveness of Federal (and State) funds appropriated for vocational education is determined largely by State legislation and policy. An examination of historical data regarding vocational education expenditures suggested that significant changes have occurred in the legislation and/or policies relating to the use of both State and Federal funds for vocational education. Since existing State legislation and policy significantly affect the expenditure of Federal vocational education funds, any future evaluation of the impact or effectiveness of Federal funds must recognize, and be able to take account of, these factors. It thus became an objective of this study to document the general provisions under which State funds and Federal Vocational Education Act Basic Grant Part B funds are expended for facilities construction, equipment acquisition, and basic instructional program support. (Specifically excluded from this study activity was any attempt to provide detailed information about the provisions for funding the costs identified above; and no attempt was made to document practices, policies, and procedures for the expenditure of funds from other Parts of the Act.)

Status and Condition of the Vocational Education System

Until this study was initiated, virtually no information existed about the status and condition of the Nation's vocational education system -- its capacity, the extent of its services, its accessibility and the extent of its coverage, and the condition and adequacy of its facilities, etc. The identification of this void led to a requirement to develop a comprehensive documentation of the condition of the Nation's vocational education delivery system. This documentation was to include an analysis of factors ranging from facilities information (such as age, condition, capacity, etc.) to information about the populations served, both geographic types (urban, suburban, rural, etc.) and students (secondary, postsecondary, and adult). It was also to include information about the extent to which available facility resources are used to their capacity, either by the public schools themselves or other agencies having responsibilities for manpower and human resource development.

Methodology

Data used in addressing the issues described above were secured through two procedures:

- Interviews with State Directors of Vocational Education and the executive officers of other State agencies having responsibility for educational systems in which vocational education programs are provided; and

- A mailed survey (with telephone followup) of all public secondary and free-standing two year postsecondary institutions having facilities for five or more different vocational education programs.

State agency interviews were conducted with State Directors of Vocational Education and the executive officers and staffs of other State education agencies having vocational education responsibilities. In these interviews information was sought on: the organization of the States' vocational education delivery systems; the governance of vocational education programs at the State and local level; and the provisions under which the capital and operating costs of vocational education programs are funded. The results of these interviews, as supplemented by documentation secured from State agencies, were compiled in a "profile" report of each State's vocational education system.

The survey of institutions providing vocational education was conducted as a mailed survey, supplemented by a telephone followup of institutions which failed to respond to two mailings. The institutional survey component of this study sought information about institutions (their size, facility resources, age, condition, type of region served, etc.), their operating characteristics (hours and schedules of operation, shared time programs, etc.) and factors relating to the planning and evaluation of their programs and facilities. These data were secured from approximately 95 percent of the institutions included in the initial study universe.

Summary of Findings

The following discussions summarize the study findings which have significance for Federal policy formulation and for future evaluations of vocational education programs and policy.

State Governance of Vocational Education

State governance structures for vocational education may be characterized by:

- Ten (10) different categories of board structures having different compositions and differing levels of authority over the multiple State agencies responsible for vocational education (Table 1);

- Five (5) different classes of administrative units having varying degrees of authority for vocational education both within the agencies of which they are a part and in other agencies having vocational education responsibilities (Table 2); and

Table 1

State Board Types

Type	Definition
Type I	The State Board for Vocational Education is an independently constituted Board responsible for vocational education policy but not having a direct authority over the State agencies responsible for the implementation of policy and the supervision of institutions providing vocational education.
Type II*	The State Board for Vocational Education is an independently constituted Board responsible for vocational education policy and having direct authority over a State agency having responsibility for the implementation of policy and the supervision of institutions providing vocational education at the secondary and/or postsecondary levels.
Type III*	The State Board for Vocational Education is an independently constituted Board having responsibility for vocational education policy and serving as the administrative agency responsible for both the implementation of policy and the supervision of institutions providing vocational education at the secondary and/or postsecondary levels.
Type IV*	The State Board for Vocational Education is constituted from the membership of another Board which has direct authority over one or more of the State agencies having responsibility for the implementation of policy and the supervision of institutions providing vocational education.

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*State Boards of Types II, III, and IV may be further classified by subtypes depending on the agencies and/or institutions over which they have direct authority. The three primary subtypes of State Boards are:

Subtype (A)	State Board is over State Agency having responsibility for institutions operating at the secondary level but does not have direct authority over institutions at the postsecondary level.
Subtype (B)	State Board is over State Agency having responsibility for institutions operating at the postsecondary level but does not have direct authority over institutions operating at the secondary level.
Subtype (C)	State Board is over State Agency having authority over all institutions which constitute the primary delivery system for vocational education at the secondary and postsecondary levels.

Table 2

State Agency Responsibility for Vocational Education

Model	Definition
Model I	State Agency has administrative responsibility only; the direct supervision of institutions providing vocational education is the responsibility of another agency within the same department or division of the State educational system.
Model II	State Agency has direct responsibility over institutions providing vocational education at one (secondary or postsecondary) level but has no direct authority over institutions operating vocational education at the other level.
Model III	State Agency has been delegated administrative responsibility over institutions providing vocational education at one level (secondary or postsecondary).
Model IV	State Agency has direct responsibility over institutions providing vocational education at both the secondary and postsecondary levels.
Model V	State Agency has direct responsibility over institutions providing vocational education at one level (secondary or postsecondary) and direct authority for program approval and evaluation of institutions operating at the other level.

Table 3

State Agency Authority Over Local (Vocational) Institutions

Class	Definition
Class I	Institutions offering vocational education are administered directly by the State education agency and are fully State funded.
Class II	Institutions offering vocational education are administered by a local agency under the direct authority of the State education agency and are fully State funded.
Class III	Institutions offering vocational education are administered by a local authority reporting to the State Agency and are funded with State and local funds.
Class IV	Institutions administered under policies established by a State Agency other than the vocational education agency, e.g., university system.
Class V	Institutions administered "independently" by a local education agency under policies established by the State education agency indicated.

- Five (5) different levels of authority over institutions which provide vocational education (Table 3).

In addition, there exists a multitude of special provisions and practices ranging from informal agreements to coordinating agencies, established by State legislation.

All of these variables have a potentially significant impact on the extent to which the "sole State agency" for vocational education can effectively implement Federal program initiatives and/or be accountable for compliance with all relevant Rules and Regulations and for the efficient use of vocational education resources. Therefore, any comparative studies of State vocational education systems and programs must take account of the differences represented by these variables.

Local Vocational Education Programs

Vocational education institutions and delivery systems may be classified in terms of no less than:

- Six (6) types of institutions (Table 4);
- Four (4) different classes of single and multi-district services (Table 5); and
- Thirteen (13) different types of program administration structures (Table 6).

In addition to these characteristics of the institutions and delivery systems, vocational education programs and institutions serving students on a "regional" basis may be characterized by as many as:

- Eight (8) educational agency types (Table 7);

administered by governing authorities reflecting

- Five (5) different classes of board composition (and an equal variety of relationships among participating educational agencies and constituencies) (Table 8);

and having one of

- Six (6) different characteristics of fiscal agent reflecting different levels of autonomy (Table 9).

The diverse local vocational education agency characteristics are found in many combinations which reflect different legislative provisions and different (expressed or implied) objectives for the vocational education system or program. They may also be assumed to reflect differences in the

Table 4

Definitions of Institutional Types[1,2]

Institutional Type	Definition
Comprehensive High School	A comprehensive high school is a general high school offering programs in both vocational and general academic subjects, but in which the majority of the students are not enrolled in programs of vocational education.
Vocational High School	A vocational high school is a specialized secondary school that offers a full-time program of study in both academic and vocational subjects and in which all or a majority of the students are enrolled in vocational education programs.
Area Vocational Center	An area vocational center is a shared-time facility that provides instruction in vocational education only to students from throughout a school system or region. Students attending an area vocational center receive the academic portion of their education program in regular high school and other institutions.
Community College	A community college is a two-year postsecondary degree granting institution offering a comprehensive program of instruction in both general and vocational-technical education and offering a transfer program to higher education institutions.
Technical Institute	A technical institution is a two-year postsecondary degree granting institution offering instruction primarily in vocational and technical education and whose educational programs are primarily directed toward immediate job placement -- although provisions may exist for the transfer of credit to institutions of higher education.
Area Vocational School	An area vocational school is a postsecondary non-degree granting institution (or an institution offering a degree that is not recognized as a collegiate degree by the appropriate regional accrediting commission) offering instruction in vocational and technical education only, and whose educational programs are terminal in nature. Such institutions generally have no provision for the development of transfer programs to either two-year institutions or to four-year institutions of higher education.

[1] Though not part of the general definitions provided above, the universe of institutions for which data is reported in the study is limited to institutions having shop, laboratory or classroom facilities for five or more different programs in vocational education.

[2] While many four-year colleges and universities also offer two-year programs in vocational-technical education, these institutions were excluded from this study unless they operated a designated area vocational education school.

Table 5

Types of Regional Service Arrangements

Regional Service System	Definition
REGULAR* School District	An institution serving a single regular school district is (for purposes of this study) a secondary school serving students from within a regular secondary or secondary and postsecondary school district only.
Regional School DISTRICT*	A regional school district administers an educational program whose client school systems are defined either by their inclusion in the boundaries of an independent district or by their membership in a jointly organized and supported educational system.
Regional Vocational Education PROGRAM*	A regional vocational education program is offered in a vocational education system serving students from more than one designated school district or within designated boundaries, but not existing as an independent educational authority. (This designation is generally applicable to "host" school programs, some joint vocational school and shared resource vocational education programs, and State institutions serving fixed regions.)
Vocational Education SERVICE AREA*	An institution serving a regional vocational education service area is an institution having primary responsibility for vocational education within a region whose boundaries are defined for administrative and planning purposes but which do not uniquely and wholly define the population to be served. (This designation generally applies only to State institutions.)

*Capitalized words are used as classifiers in Table II-4, Volume I.

Table 6

Definitions of Vocational Education Delivery Systems and Program Organization Types[1]

Type of Delivery System or Program Organization	Definition
REGULAR[2] School District	A REGULAR school district is one in which a local education agency has responsibility for the administration of both general and vocational education programs in institutions other than those established by special purpose enabling legislation.
Subtype A	Regular elementary and secondary school district
Subtype B	Independent postsecondary technical institute or community college school district
SPECIAL[2] School District	A SPECIAL school district is an independent school district that exists apart from regular school districts serving the same region and that has an independent administrative authority and generally independent taxing and bonding authority.
Subtype A	An independent secondary vocational school district providing vocational education services only
Subtype B	An independent school secondary school district providing vocational education as well as other shared services
Subtype C	An independent postsecondary vocational education district
JOINT[2] Vocational Education Program	A JOINT vocational education program is a vocational education program offered in a separate institution that is supported jointly by two or more of the school systems served by the institution.
Subtype A	A vocational education institution jointly operated by participating school districts
Subtype B	Vocational education institution operated by an independent/quasi-independent authority and serving sponsoring member school districts
SHARED RESOURCE[2] Vocational Education Program	A SHARED RESOURCE vocational education program is a vocational education program serving students from multiple school districts through any of a variety of student exchange programs including contracts, joint agreements, etc. Vocational education programs involving the sharing of resources are generally administered independently by the participating educational systems.
HOST SCHOOL[2] Vocational Education Programs	A HOST SCHOOL vocational education program is a vocational education program administered by a regular school district but serving students througout a region.
STATE[2] Vocational Education Programs	A STATE vocational education program is a vocational education program administered directly by a State agency or by a local authority under provisions established by a State agency.
Subtype A	State vocational high schools (full-time)
Subtype B	State postsecondary area vocational schools
Subtype C	State technical institutes
Subtype D	State community college systems

[1] This table defines classes of delivery systems only and should not be confused with types of administrative structures which are defined in Tables II-7 and II-8 and reported by State in Table II-9, all tables in Volume I.

[2] Capitalized words are used as classifiers in Table II-4, Volume I.

Table 7

Educational Agency Type

Classification	Description
State School System	State administered institutions having no direct participation of the "local" electorate in the selection of the administrative body.
State	School system administered by the State agency with no local governing board.
State-LB	State institution administered by a local governing board.
Independent School District	A legally constituted school district having locally selected administrative body empowered with the authority to enter into contracts and to raise taxes and issue bonds to raise capital and/or operating revenues.*
Ind-Reg	Regular school district (secondary).
Ind-Sp	Special school district (secondary) for shared services including, but not limited to vocational education.
Ind-Sp Voc	Special school district (secondary) exclusively responsible for vocational education.
Ind-PS	Independent community college district or other postsecondary education district.
JOINT School Program	An educational system serving multiple school districts and administered by an authority composed of representatives of participating school districts but not having independent legal status for taxation and bonding.
EXTERNAL Administrative Agency	An "independent" educational authority created by multiple school districts but operated as a quasi-independent authority under the direction of an agency representing the participating school districts.

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*This definition also applies to school districts whose revenues must be raised by other authorities of local government -- such as county commissioners, etc. -- so long as such revenues are raised for the purpose of supporting the educational program(s) in the institution identified.

Table 8

Composition of Governing Authority

Type	Description
Indep	Administrative authority (Board of Education or Board of Trustees, etc.) composed of lay citizens from the district served by the institution or educational program.
Rep-B	Administrative authority composed of one or more representatives of the Board of Education of the participating school district.
Rep-Bs	Administrative authority composed of representatives appointed by the Boards of Education of the participating school districts.
Rep-S	Administrative authority composed of the superintendents of the participating school districts.
State	Administrative authority appointed by the State.

Table 9

Fiscal Agent Type

Model	Classification	Description
Dep	Fiscally Dependent Institution	The education agency does not receive State and Federal funds by direct appropriation to the institution but is supported by participating local education agencies with funds appropriated to them from State and Federal sources (and local revenues).
	Independent Fiscal Agent	The education agency receives direct appropriations of State and Federal funds.
		The educational institution is operated as a wholly independent fiscal agent.
	Local-D	Local revenues are secured through direct taxation and/or assessments.
	Local-T	Local revenues are secured through "tuition" paid by participating local education agencies.
	Local-F	One of the participating school districts is designated fiscal agent for the institution.
Mixed	Mixed Funding Status	Institutions which receive both direct allocation of State and Federal funds and support from participating local agencies which also receive supplementary State and Federal allocations.
State	State Fiscal Agent	The State education is the fiscal agent for the system.

extent to which State agencies can have an impact -- either by policy actions or fiscal provisions -- on the performance of the vocational education institutions and delivery systems themselves. As a consequence, they suggest system parameters which must be considered in any future study of vocational education systems and programs.

Vocational Education Program Financing

Vocational education programs may be financed from as many as four primary sources: local revenues, State general education revenues, State vocational education revenues; and Federal Vocational Education Act funds. Of these revenue sources, the funds under the direct control of the State agency generally do not represent the major source of vocational education support; and even when they do, the State agency generally has little discretion in the manner in which they are expended.

Funds for the support of vocational education are generally distributed through one of:

- Eight (8) cost allocation units (Table 10);

which may be applied to one or more of:

- Eight (8) cost computation procedures (Tabl. 11).

Different funds distribution provisions generally apply to the allocation of funds from each source -- State general education funds, State vocational education funds (where applicable), and Vocational Education Act funds. Further, funds from the same source may be distributed under different provisions to different institutions or for different purposes in the same institution. These differences may impact on program effectiveness and need to be considered in studies of program and policy effectiveness.

Vocational education program financing provisions identified in this study were generally not found to have been derived from the specific requirements of vocational education program support provisions. Rather, they generally represent adaptations of general education support provisions in each State. Limitations on vocational education support programs imposed by such general education support programs may limit the impact of Federal funds; or, stated from an alternative position, the limitations imposed on the use of Federal funds may limit their effective use as a supplement to State funds.

Vocational Education Facility Resource Distribution and Utilization

The location of institutions having facilities for five or more different vocational education programs does not reflect the distribution of the population. This disparity is reflected in the data presented in Table I and II on the following page. From data presented in these tables it may be shown that the institution/population and station/population ratios are significantly higher for medium cities, small towns and rural communities than for the central cities and schools of large urban areas. This suggests that either the needs

Table 10
Distribution of Institutions and Instructional Stations in Secondary Schools vs. Population

Population Region Type	Institutions		Stations[1]	Population
	Number	Percent	Percent	Percent
A. Central City, Metropolitan Population over 500,000	103	9.3	13.3	22.8
B. Suburb, Metropolitan Population over 500,000	110	10.0	10.5	38.0
C. Central City, Metropolitan Population 100-500,000	102	9.3	17.1	8.9
D. Suburb, Metropolitan Population 100-500,000	33	3.1	2.9	3.6
E. City or Town Population 25-100,000	197	17.8	15.5	3.1
F. Town or Region Population 0-25,000	115	10.5	6.7	23.6
G. Service Area not Elsewhere Classified	448	40.0	34.0	NA
Total[2]	1,108	100.0	100.0	100.0

[1] Instructional stations.

[2] Institutional totals (6,668) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this table.

Table 11
Distribution of Institutions and Instructional Stations in Postsecondary Schools vs. Population

Population Region Type	Institutions		Stations[1]	Population
	Number	Percent	Percent	Percent
A. Central City, Metropolitan Population over 500,000	453	8.1	10.4	22.8
B. Suburb, Metropolitan Population over 500,000	597	10.7	13.5	38.0
C. Central City, Metropolitan Population 100-500,000	368	6.6	8.2	8.9
D. Suburb, Metropolitan Population 100-500,000	277	5.0	6.1	3.6
E. City or Town Population 25-100,000	958	17.3	21.4	3.1
F. Town or Region Population 0-25,000	2,403	43.3	34.9	23.6
G. Service Area not Elsewhere Classified	509	9.1	5.7	NA
Total[2]	5,560	100.0	100.0	100.0

[1] Instructional stations.

[2] Institutional totals (6,668) do not equal total survey responses (6,693) because some institutions did not respond to the classifying question used in the generation of this table.

Table 12

Program Support Allocation Funding Unit

Type	Description
INSTITUTIONAL (or Vocational Education Program) Budget Funding	Institutional budget funding refers to program support policies under which the institutional (or vocational education program) budget as a whole serves as the basis for the computation of program support allocations.
PROGRAM (or Cost Center Funding)	Program (or cost center) funding refers to programs under which State and/or Federal funds are allocated to institutions on the basis of separate cost centers or program components (such as instruction, administration, guidance, etc.). Program (or cost center) funding per- reimbursements are generally determined using fixed or variable centage funding programs, although several States also have "added cost" funding programs which apply to instructional program funding. (For costs other than instructional costs special provisions generally define a maximum allocation amount.)
UNIT Funding	Unit funding refers to program funding policies under which State and/or Federal funds are distributed based on units of educational Such sup- services measured in terms of something other than cost. port programs are generally associated with flat grant programs which entitle institutions to a fixed reimbursement per full-time equivalent student (FTE), per teaching unit, or per contact hour. In some instances, however, unit funding may be employed in combination with fixed or variable percentage (formula) funding.
PROJECT Funding	Project funding refers to program funding policies under which State and/or Federal funds are allocated as grants for special purposes. (While project funding is used for some purposes in all States, the an exclu- use of the term in the context of this discussion refers to in addi- sive funding procedure which is used in lieu of, rather than tion to, other general program support provisions identified above.)
ENTITLEMENT Funding	Entitlement funding refers to program funding policies under which funds are allocated by formula without reference to specific units of accounting.
SUPPLEMENTAL Funding	Supplemental funding refers to a provision under which the amount the differ- funded from the source noted is determined as either a) ence between the amount funded from other sources and the total amount to be paid from all designated sources, or b) funds used for services not covered by the basic program support funding procedures.
SALARY Schedule	The amount funded from the source identified is based on a fixed salary or percentage salary reimbursement schedule.
SPECIAL-Other	Provision not elsewhere identified -- see individual State reports, in Volume II for special provisions. (The designation "SPECIAL" is used where funding provisions are complex and cannot be described in terms of the above classes or where specific information was not obtained from respondents.)

Table 13

Program Cost Computation Procedures

Type	Description
FIXED Percentage Funding	Fixed percentage funding refers to provisions under which a fixed percentage of the cost base (see Table V-1) is reimbursed with State and/or Federal funds.
VARIABLE Percentage Funding	Variable percentage funding refers to provisions under which the percentage of the cost base (see Table V-1) to be reimbursed with State and/or Federal funds is determined by formula or through some other provisions which results in differential reimbursement scheme.
MIXED (Fixed/Variable) Funding	Mixed funding programs refers to either provisions under which (a) funding from the source indicated has both a fixed and a variable component or (b) the total percentage of the cost base (see Table V-1) to be reimbursed from State and Federal funds is fixed by policy but where the allocation from one or the other sources (generally the Federal source) is determined by formula (variable percentage funding.)
Fixed ALLOCATION Funding	Fixed allocation funding refers to provisions under which State and/or Federal funds are distributed for program support based on a fixed amount per payment "unit" (i.e., FTE, etc.) -- the amount of which is determined by policy independent of any provisions of fixed or variable percentage funding. (Includes foundation funding.)
ADDED COST-Funding	Added cost funding refers to provisions under which State and/or Federal funds are allocated to institutions under provisions intended to defray the added costs of individual vocational education programs. These programs may be based on absolute cost differences (in which differential rates are defined in terms as specific amounts to be reimbursed for different programs) or relative cost differentials (in which differential rates are defined in terms of multiples of a base program support rate.)
NEGOTIATED Funding	Negotiated funding refers to provisions under which State and/or Federal support for an institution's vocational education program is determined on some basis other than those defined above. Generally, such provisions apply only to protect funding programs and to the funding of State institutions and other (generally postsecondary) institutions whose budgets are determined by legislative action.
DIFFERENTIAL Funding	The share of the program cost paid from a differential funding source is determined as the difference between the total amount to be funded from two or more sources and the amount allocated from other sources.
Differential RATE Funding	Program funding based on differential multiples of a base unit amount or a differential amount based on total program cost (as opposed to added cost).

of cities and suburbs of major urban areas are not being met; the needs of medium cities, small towns and rural areas are overmet; or both.

Data compiled on facility utilization have proven to be inconclusive. Data secured in this study have been analyzed in a variety of ways, based on several sets of "rules" relating to program operating patterns. However, none of the "rules" tested on the available data could be broadly verified by other data sources. The only conclusion which can be drawn from these findings is that there is great diversity in the operating characteristics of different institutions in different States. Further analysis of the available institutional data, using additional information (not currently available) regarding institutional operating practices, will be required in order to fully assess the utilization of vocational education facilities.

Conclusions and Recommendations

The data and information compiled in the conduct of this study suggest these general conclusions:

- Differences which exist in the organization, governance and financing of vocational education systems of the 56 States and Territories are likely to have a significant impact on the manner in which Federal policies are implemented in the different States and Territories and the effect of those policies on achieving the objectives established by the Federal government.
- Provisions of Federal legislation relating to the manner in which funds are to be distributed (e.g., formula distribution requirements) do not inherently assure the most efficient use of such resources.

From these observations, it follows that the effectiveness of Federal provisions for the support of vocational education could be substantially improved through an examination of the relationships which exist between Federal requirements and existing State policies, practices, and statutes.

Available data are insufficient to provide a basis for determining the specific impact which the above observations have on the policy making and evaluation requirements of Federal agencies. However, an examination of these tentative conclusions and summary observations suggests several issues which warrant further study. These suggestions are enumerated below.

State Agency Policy and Governance Studies

Studies of the process by which policies and priorities are established at the State level, and the significance of these practices on the implementation of the provisions of Federal legislation should include examinations of:

- The process of agency interaction, both formal and informal, and the "impact" of such interactions on policy decision-making and the implementation of policy.
- The degree to which State policy is, in fact, a function of the State requirements or is a reflection of limitations set by statute and other political factors external to the State agency.
- The role and impact of legislatively mandated planning committees and review groups which participate in the development of the State Plan for Vocational Education.
- The impact of State policy, planning, and administrative practices on the operation of institutions.

These issues clearly have major significance for vocational education and, because of the extreme differences in State governance structures for vocational education indicated in previous discussions, can be meaningfully addressed only in the context of a study which is national in scope and which will include an assessment of each of the characteristics of agency interaction identified in the preceding discussions. Such a study should also include an effort to expand upon the provisions identified in the present study through a study of agency interaction and policy formulating activities similar to those indicated in the studies suggested above.

Local Agency Governance Structures and Fiscal Agencies

The results of this study suggest that there is a substantial number of characteristics about the governance and fiscal agent status of local vocational education agencies and institutions which may have an impact on the implementation of State and Federal policies and programs. These characteristics clearly do have significant implications for any studies of vocational education costs and any studies of the flow of vocational education funds. Therefore, there exists a need for studies to identify:

- The impact of alternative local vocational education agency and institution governance structures on the operating characteristics of institutions (e.g., utilization, operating hours, students served, etc.) and on the responsiveness of agencies and institutions to State and Federal program and policy initiatives.
- The fiscal agency and fiscal support structure for all institutions providing vocational education.

The first of these suggested studies, which should be undertaken in combination with the suggested studies of State agency policy formulation and governance, is essential to any attempt to assess the factors affecting State compliance with relevant Federal legislation. Such a study is necessary to any effort seeking to identify the factors affecting compliance and the points at which "corrective action" may be most meaningfully applied.

The second of these studies is essential because: it provides the critical supplementary data which is required to understand data from other studies relating to the distribution of vocational education funds; it is a critical link between the institutions reporting receipt and expenditure of State and Federal funds and the institution in which services are provided; and it represents critical data to be used in any sample study of vocational education costs.

Financing Vocational Education

Since the effective implementation of policy is ultimately determined by provisions of financing which are aimed at promoting the implementation of policy, it is important to understand the effectiveness of alternative funding policies and procedures. It is important to recognize, however, that State statutes and policies have a significant impact on the kinds of funding policies and provisions which can be implemented and on the effect of applying new policies to one funding source (especially Federal) in a context in which others remain unchanged.

Therefore, it is necessary to conduct studies of: the impact and effectiveness of alternative vocational education funding programs on the operating characteristics and practices of local vocational education agencies and institutions. Because of the diversity of vocational education funding policies in different States and the potential significance of such a study for the formulation of both State and Federal funding, such a study should involve a study of practices, and their impact, in all States and Territories.

Facility Distribution and Utilization

It is suggested that further examination of these data be undertaken in an effort to further identify factors which affect the utilization of available facilities and the extent to which additional facilities may be required to meet the demands for vocational education.

APPENDIX #2

"Free Training": Special For-Industry State-Subsidized Job Training Programs in Two States

A Report Prepared for the National Institute of
Education's Rural Vocational Education Study.

NIE-P-79-0111

Robert Goodman

This paper was written for the National
Institute of Education in conjunction with
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Education or the Vocational Education Study.

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1. Introduction: For-Industry State Subsidized Training Programs

Recent attempts to link education and economic growth more closely have become an important and sometimes controversial issue among politicians, business people, educators, and other public officials. Broadly stated, many states and local communities are attempting to coordinate and fine tune the education of their people with private industry's investment strategies and the state's aspirations for economic development. Nowhere perhaps is there greater closeness of these ties as in the state subsidized special short-term for-industry job training programs.

The programs have different names in different states; in South Carolina where the programs began in 1961 they are called "Special Schools," in Minnesota, "New Jobs," and in Texas, "ProfiTrain." By 1975, almost every state had some form of subsidized for-industry training programs. Though they vary in detail, many share a common theme; an industry willing to relocate itself to a new state, or an industry which expands in a place it already operates, is provided with job training for its workers at little or, as is becoming the norm, no cost.

The programs are usually short-term, ranging from a week to a few months -- although in some cases they run as long as a year. The state either provides instructors or pays for the time of the companies' own instructors. Classes take place at a local school, a building rented by the state, or the firm's factory. Equipment and material is either provided by the state directly or sometimes lent by the industry. Trainees are either not paid at all, or sometimes paid through CETA grants and other federal and state job training monies. The programs generally involve extensive participation of a state's economic development agencies and vocational education departments.

The closer ties now being forged between state education departments, especially vocational education departments, state economic development departments, and business people, through special state-subsidized for-industry training programs have been lauded by public officials and leaders in business as an important step forward in the creation of local jobs and in the education of the local citizenry. They have been variously described as inducements for the creation of new business and the expansion of existing ones, as well as an essential tool for developing local community's economic base. They have also been criticized as one in a battery of techniques that are used by states to hire jobs away from one another.

This study examines the use of special for-industry training programs in two states: South Carolina and Minnesota. They have been chosen among other reasons for their geographic disparities as well as the different historic origins of their programs. Both states also have large rural populations. South Carolina's program began almost 20 years ago as the first in the nation. Minnesota's program, less than five years old, is like many other similar state programs, modelled on South Carolina's effort, and in a sense, represents an attempt to use the South Carolina experience to improve economic development prospects in Minnesota.

The stated purpose of for-industry training programs is to create jobs, and thus provide state residents with better job opportunities. Educational and economic development advertising promotional material by state agencies explains that these programs reduce or eliminate a company's need to train its employees, provide future employees with high quality training and therefore represent both a benefit to the employer and employee.

The study examines the goals of the programs, and their accomplishments. Through existing data and interviews with state and federal officials as well as others involved in education, job and economic development in these states, a composite picture is drawn. The resulting conclusions indicate much broader education, economic and social implications than these relatively small programs might initially appear to imply. In some cases they raise immediate policy and legal questions about the specific strategies being used.

2. South Carolina's "Special Schools"

South Carolina's "Special Schools" program claims to be the country's oldest program in state subsidized direct training for industry. Started in 1961, the program was part of an effort by state officials to attract industry. Since that time, 64,000 trainees for 535 industrial firms have passed through the program.

Almost half of all training has been for jobs in textile and textile-related industries. Another one-third has been in metalworking, with the remainder in electrical, chemical, and miscellaneous industries.

South Carolina Technical Education officials believe the "Special Schools" program has played a major role in attracting industries from other states. They are also proud of the fact that the program is being imitated by other states.

During the late fifties, according to Impact, the official publication of the Tech Board, industries began moving to South Carolina to take advantage of the "mild climate, ample land and water, and a work force wanting and needing jobs." The problem says the publication, "Industries soon realized that few of their potential employees had the background and training needed and that they were faced with providing the training themselves." "If the state did not train people for these industries," said a state legislative study committee at the time, "they would go to other states."

In order to compete with other states and to provide industry with a constant stream of trained personnel, a system of 16 post-secondary technical centers were built between the mid-60's and mid-70's. The Tech Centers, or Tech Colleges as many are now called, have been built within a 30-mile radius of 90 percent of the state's population, and provide both two-year and four-year degree programs. By 1978 over 140,000 students were enrolled

SPECIAL SCHOOLS TRAINING PROGRAMS

September 1961 - June 1979

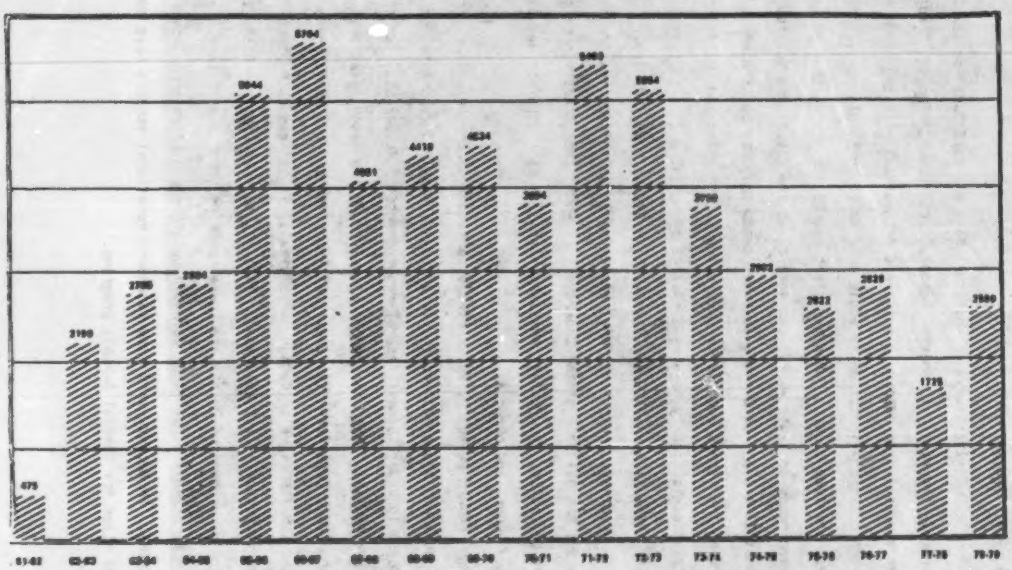
GENERAL CATEGORIES OF TRAINING

	Number of Companies	Number Trained
Chemicals & Plastics	19	1,803
Electrical	21	4,097
Metalworking	154	23,269
Textile & Textile Related	252	30,078
Miscellaneous	89	4,409
TOTAL	535	63,656

Source: State Board for Technical and Comprehensive Education, Columbia, South Carolina.

Source: State Board for Technical and Comprehensive Education, Columbia, South Carolina

DIVISION OF INDUSTRIAL AND ECONOMIC DEVELOPMENT
STATE BOARD FOR TECHNICAL AND COMPREHENSIVE EDUCATION
Special School Trainees
1961-62 thru 1978-79



in these centers.

Tech Centers serve as the local base of operations for the Special Schools programs. In Special Schools, according to Impact, "Training programs were prepared to respond quickly and pragmatically to the needs of industry." When a company indicated it would move to South Carolina, planning and training was provided so that "when the plant opened its doors, skilled employees were ready to begin work." In some cases the classrooms for industry are housed in the Tech Center, in other cases they may be at a rented building or an industry's own plant. Recruitment, screening and testing of the trainees is usually done by the state agencies, with industries intimately involved; final hiring is the exclusive decision of industry.

Post-secondary vocational education in South Carolina technically operates under the guidance of the Department of Vocational Education of the State Board of Education. In fact it operates virtually as a separate agency with its own budget and purpose.

According to Dr. Moody Oswald, director of the Department of Vocational Education, his agency administers funds, data, and reporting for the Tech Board in order to meet federal requirements of PL 942-82. But effectively, says Oswald, "They operate by themselves." The major relationship between the State Department of Vocational Education and the State Board for Technical and Comprehensive Education, says Oswald, is to keep each other informed about their programs (articulation). That is, to keep the Tech Board informed about the Department of Vocational Education's programs and to keep the Department of Vocational Education informed about the Tech Board's post-secondary programs. In recent years some secondary vocational schools have come into use as sites for Special Schools programs.

3. Minnesota's "New Jobs"

In Minnesota, special government-subsidized training programs, called "New Jobs" were developed in direct response to similar programs in other states. "The one hundred percent (free training) concept," says Mel Johnson, Director of Program Improvement and Information, for the Division of Vocational and Technical Education, "is based on competition with other states -- that's what industry expects." Johnson's Division, part of the State Department of Education, is responsible for administering the program. At the time, according to another source, Oklahoma was attempting to lure Minnesota industries with offers of better climate, lower taxes and free training.

New Jobs, only four years old, has been a relatively small program, having trained 1700 workers for 24 industries at a cost of $710,000. Training takes place either at the job site, or in one of the state's 33 Area Vocational Technical Institutes (AVTI's). Like similar programs in other states, the training costs of instructors, facilities, equipment and administrative costs are provided free to participating industries. While the New Jobs program pays all training costs, several state officials emphasize they can subsidize a larger part of industry's training costs with Adult Education funds. "We can cover 65 percent of the cost at any time," says Wes Cochrane, Assistant Commissioner of the Minnesota Department of Economic Development.

Unlike South Carolina's Special Schools program, New Jobs is willing to use programs like CETA to pay workers during the training periods. In fact, the criteria for projects states: "The CETA prime sponsor must be contacted so that the company is assured of CETA program services, if eligible." In general, however, CETA has played a minor role in these programs.

Typically, New Jobs training programs have varied between 10 to 50 trainees, with four programs, involving between 160 and 210 workers each, comprising almost half the total New Jobs effort. The kind of job trained for ranges from garment manufacture to welding, from large-scale power generator manufacture to hospital nursing. To qualify a firm agrees to hire ten new workers over a six-month period. Most training periods average less than 90 days, with an average cost per trainee of approximately $450.

The wide range of jobs reflects the policy of approving projects on a first-come, first-served basis. The process for selecting companies to participate in a New Jobs project resembles the process used for Special Schools in South Carolina; if the state has the training money available, and if a company is moving to the state or expanding within the state and fills out the proper forms, it will usually get the training money.

Although the state Department of Education administers the New Jobs program, the screening of potential trainees is carried out locally. In some cases companies may ask the unemployment security office (Job Service) to do the actual screening, in others they may ask the Job Service to pass the applicants on to the company which will screen directly.

The programs began in 1977 with the use of an initial $80,000 of federal discretionary funds for vocational education. The stated purpose of the programs was "encouraging the expansion, retention or new arrival of manufacturing firms in Minnesota." Eight New Jobs projects were involved in training over 600 people using federal funds. The remaining projects used funds from the state's New Jobs program appropriations, from Adult Education funds, and from state Special Needs funds.

Through an agreement between the two state agencies, New Job projects must be approved by the Department of Economic Development, with the Department of Economic Development carrying responsibility for implementation. During the first year the Economic Development official participating in the program was funded with vocational education monies.

A few years after the program began, the legislature called a halt to its operation. The action, says Mel Johnson, responded to a stronger state economy at the time. "But then we started losing business to the Sun Belt and the program was put back in."

The policy for funding New Jobs has varied. When the appropriation for New Jobs was stopped by the legislature in early 1980, the Department of Education continued to offer industry training with Adult Training monies allowing the state to pay 65 percent of industry's training costs.

In early 1980, the Minnesota Legislative Advisory Committee decided not to release the remaining funds of a two-year $500,000 appropriation which had been earmarked for the New Jobs program. The decision was made as the result of a disagreement between the Legislature, and the Department of Education over the goals and procedures for the New Jobs program.

Criticism of the New Jobs program has focused on the type of job being trained for, the type of companies involved, and the location of the training programs. At the heart of the criticism was the Department of Education's policy of making the New Jobs program available on a first-come, first-served basis.

Critics in the legislature and to a certain extent in the Department of Economic Development have questioned the use of funds for minimum wage type jobs, for "dead end" low skill jobs. According to one economic development official who asked not to be named, "We didn't support Vocational Education on New Jobs because it's not properly targeted -- not all of the jobs are good jobs, some are low paying."

Some public officials and political representatives have questioned the necessity of using public subsidies for job training; many have felt such subsidies are not critical to a firm's decision to expand or move to the state.

Some Minnesota legislators feel industry should be required to pay all or at least part of the cost for training its employees. Others criticize the program for locating the preponderance of New Jobs projects in rural rather than urban areas. And they have also raised questions about the use of training funds without a plan of what kind of job needs to be developed to have a positive economic and social impact on a community.

4. The Benefits for Industry

The benefits of "Special Schools" to industry in South Carolina, say state and business officials, is the state's help in the process of screening potential employees. South Carolina's training in its "Special Schools" programs is most often for simple repetitive tasks typical of textile and metalworking factory assembly line operations.

With help from the state's Job Service and business management people, the Development Board and the State Board for Technical and Comprehensive Education (Tech Board) will screen workers for attributes which business considers desirable for these jobs. Typically business prefers a ratio of five applicants to every one person chosen; in some cases, more.

According to Earl Ellis, Director of the Special Schools program, "The big attraction is the screening process." In this process, business is able to specify whatever requirements it has for employees, and to review every applicant before he or she is accepted for the training program.

The attributes screened for, according to Tech Board and Development Board officials are cooperativeness with and loyalty to employers, punctuality, attitude towards work, previous skill level and job experience, criminal background, aspirations in life, and record of union activity. According to one Tech Board official, this is called the "pre-employment weeding-out process."

The lack of union activity in South Carolina, says Robert E. Leak, Executive Director of the state's Development Board and ex-officio member of the Tech Board, is the state's singular most important attraction for industry. "Unions have given managers such fits," says Leak. The state's "right-to-work" law and the screening provided by the Special Schools programs, according to Leak, provides an attractive inducement to expanding industries within the state and those looking to relocate from other states.

Special Schools screens for previous union background of the applicants in order to determine the potential loyalty and cooperativeness of the work-force to industry. "If you're known to be a union agitator," Leak explains, "you'll be dropped from consideration." In addition, he says, state officials in charge of screening will ask the local sheriff's office to check for the job applicant's previous criminal record.

According to several officials interviewed at both the Tech Board and the Development Board, a singular attraction of the Special Schools program for industry is that no trainee who enters the program is guaranteed a job, nor are any of them paid during the training sessions. Trainees in the Special Schools program are required to sign an agreement which specifically states they understand they won't be guaranteed a job.

The advantage to industry of the lack of pay, according to H.L. "Butch" Ball, an Administrative Assistant of the Tech Board, is that the trainees must demonstrate their interest in competition with other applicants.

"You have to put up with a lot of garbage," says Ball. "You have a regular job, you have to come in three hours a day, three days a week, you have a wife and kids." Although jobs are not guaranteed, those who are willing to go through this kind of ordeal without pay, says Ball, will usually find themselves with a job when they finish the program.

More precisely, the lack of job status during the training process, according to Leak, protects companies against potential lawsuits by trainees for possible infringement of their civil rights. "People who can't hack it," says Leak, "are dropped without recourse. You can't go to EEOC or some other agency because you're not (officially) employed. If you're in an on-the-job program and you're dropped, you might bring an EEOC action. This involves time for the industry."

Another problem which the state can help industry overcome is to find locations for industries seeking to avoid meeting EEOC requirements for minority hiring. If an industry locates in a predominantly minority area, says Leak, their hiring composition by law must reflect the population of that area. "Management believes if it locates in a minority area, they're more likely to be organized (by unions)... If business doesn't want to locate in a minority area because they don't want to hire minorities, then we have to locate them someplace else or we lose them."

Although training in a Special Schools program is technically available to any qualified person who applies, in fact the program is often used to restrict the movement of workers from one industry within a community to another. This policy, says Leak, restricts the "raiding" of one industry by another. If officials in charge of screening find that a large number of applicants for a new Special Schools training program already hold jobs in a particular local industry, they will restrict the number of applicants from that industry that will be allowed to enter the program.

This policy appears to respond to the concern that business people and other state officials have expressed. Many of the state's industries, especially those in textiles, have a large, relatively low-paid labor force. In many rural communities these firms tend to be almost the only source of industrial jobs. The introduction of a new industry in these communities, while paying lower wages than in many other states, will often represent higher wages than those in local textile jobs. Textile industrialists have sometimes lobbied through local chambers of commerce and state legislators to restrict the introduction of these new jobs.

5. On Job Creation

The use of for-industry training programs ultimately raises the questions of how necessary they really are -- that is, would the "as is" situation of a particular state be significantly different without them. More specifically, does this "education" component of a state's package of economic inducements to industry in any way alter a company's decision to expand in or move to a state.

Public officials in vocational education and economic development agencies in both states claim their special job training programs help create new jobs. None, however, were able to offer any independent evidence to support this hypothesis. What was offered to document job creation were statements that company officials told public officials that the free job training was critical to a company's decision to expand, and letters of endorsement from these company officials. This type of documentation tends to be self-congratulatory, rather than precise. A description of Minnesota's New Jobs program by its supervisor, Stanton L. Williams, for example, notes:

> "Industry and Chamber of Commerce representatives
> have used such terms as fantastic and unbelievable
> to express their opinions of the program."

The supervisor routinely asks for letters of endorsement from companies which have used the program. It is not unexpected that firms receiving government subsidies will support these programs. With no independent evidence to prove their claims, companies often imply or outrightly state that the job training was a major factor in their decision to expand and create jobs. Given the relatively small amount of job training subsidy, and the relatively large companies involved, it is difficult to find such claims credible. One notable example comes from the Crenlo Company of Rochester, Minnesota, a division of Business Equipment, Inc. which received $97 for each employee trained:

> "... it is our confirmed belief we would not have been able to have added 161 persons in 1977 and a minimum of 100 more at the present time without the new job training funds."

The savings to employers ranging from approximately $250 per trainee in South Carolina to approximately $450 in Minnesota tend to support the conclusion that the actual training component of this inducement is a minor factor. On more extensive questioning officials and business people agreed that this order of cost is not critical to a company's decision to relocate or expand jobs. What they did emphasize however was that it was an important gesture of gratitude and symbol of welcome.

The argument that vocational training is in itself a significant factor for attracting industry can be considered questionable. Massachusetts, for example, with the highest per capita expenditures for vocational education in 1976 experienced one of the lowest state rates of job growth between 1970 and 1978. At the same time Arizona, New Hampshire and Texas, with vocational per capita expenditures far below the national average, were experiencing some of the highest job growth rates in the country. New York State, spending about double the per capita vocational education money of these states, had the lowest rate of job growth for the same period. Nevada, which ranked 47th in its per capita spending for vocational education in 1976, had during the period 1970-78 one of the nation's highest rates of job growth.[1]

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[1] See Vocational and Technical Education, Selected Statistical Tables 1976 Office of Education, U.S. Department of Health, Education, and Welfare. Cited A Study of Business Climates of the Forty-eight Contiguous States of America. Prepared for the Conference of State Manufacturers Associations (COSMA) by Alexander Grant and Company, Chicago, March, 1979; State job growth figures from U.S. Department of Labor, Bureau of Labor Statistics.

Indeed by 1975, Nevada was the only state without some form of for-industry subsidized job training program.[1]

For most industries, the available evidence suggests that labor wage rates and level of unionization play a much stronger role than state spending for job training or other subsidized incentives in attracting industries. A few years ago industrialists from 39 state associations comprising The Conference of State Manufacturers Associations (COSMA) were asked to vote for categories most important in determining a favorable state climate for business; 24 voted for "Average weekly manufacturing wage" 23 voted for "Labor union membership," while only six votes were received for "Vocational spending per Capita."[2] A 1977 report by the Department of Labor stated, "Labor is the single most important input into the production of a firm, accounting for approximately sixty percent of all input payments on a national basis."[3]

Between 1970 and 1978 the 25 least unionized states (less than 20 percent unionized in 1972) added double the jobs for each of their residents than did the 22 most unionized ones (those more than 20 percent organized). During the same period, the ten least unionized states added more than triple the number of jobs for each of their residents than did the ten most unionized states.[4]

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1. Industrial Development, November-December 1975.

2. Alexander Grant & Company, A Study of Business Climates of the Forty-eight Contiguous States of America, Prepared for the Conference of State Manufacturers' Associations (COSMA), Chicago, March, 1979.

3. United States Department of Labor, Rural Oriented Research and Development Projects: A Review and Synthesis (Washington, D.C.: United States Government Printing Office, 1977).

4. Department of Labor, Bureau of Labor Statistics.

Energy costs, which are often cited in explanations of differential regional job growth, have actually played only a minor role. These costs are critical only in a limited number of industries like petro-chemicals, basic metals (steel and aluminum), paper and paperboard and cement. While these industries use the bulk of the country's industrial fuel, they employ only a tiny portion of its workforce. In 1975, the eight largest energy-using industries, used nearly half of our industrial energy, but employed less than 2 percent of the workforce. America's total industrial energy was $27.6 billion in 1976; manufacturing salaries by comparison were $233.4 billion.[1]

A 1978 survey of studies of business location decisions by Professor Bennett Harrison of M.I.T. and Sandra Kanter of the University of Massachusetts confirms the view that special business incentives offered by the states has little effect in influencing business location decisions.

"With few exceptions the empirical literature fails to reveal significant plant relocation or expansion resulting from (or even correlated with) differentials in state business incentives ... In most cases access to markets, labor costs, and the availability of physical space were paramount locational considerations."[2]

While there are no definitive studies of the specific effect of job-training subsidies on a firm's decision to expand jobs, a number of studies of the role of state tax incentives (incentives which are often much larger than job training subsidies) indicate that such incentives play little or no role, in a firm's decision to create jobs.

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1. Annual Survey of Manufacturers (1974, 1975, 1976). Fuels and Electric Energy Consumed, United States Department of Commerce, Bureau of Labor Statistics, Washington, D.C.; SA, 1978.

2. Bennett Harrison, Sandra Kanter, "The Political Economy of States' Job Creation Incentives." American Institute of Planners Journal, October, 1978.

A 1979 study of state tax incentives by the Public Interest Research Group concluded, "There is little evidence to suggest that tax subsidies are relevant factors in corporate decisions either to relocate from one state or region to another or to increase investments and jobs in already existing plants."[1] Columbus Ohio's Academy of Contemporary Problems in a 1977 survey of "The Impact of State and Local Fiscal Incentives on Economic Development," arrived at similar conclusions.[2]

The lack of significant evidence to prove the job creation attributes of subsidized job training is not to say that training and skilled workers aren't attractive for many industries. What is being questioned is whether the training subsidy itself alters an industrial decision, and whether a company would not, in the absence of such subsidy, be willing to expand jobs and train its own workers.

In Minnesota, state economic development officials were skeptical of state incentives. Wes Cochrane, Assistant Commissioner of the state's Economic Development Department says proximity to markets, proximity to raw materials, and the availability of labor, are more important to industry than special incentives. If these conditions exist, says Cochrane, "a company would go there no matter what kind of incentives are offered." If the same conditions are available in more than one place, however, then incentives and personal taste of the company's decision-makers can be important.

The Director of that agency was even more blunt. According to Kent Eklund, special education and many other incentive programs are "just fluff," for companies and are not significant economic factors in their location decisions. In his view labor cost and availability, personal taxes for professional workers, and workmen's compensation costs figure much higher.

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1. Jerry Jacobs, Bidding for Business, Public Interest Research Group, Washington, D.C., August, 1979.

2. The Impact of State and Local Fiscal Incentives on Economic Development, Academy for Contemporary Problems, Columbus, Ohio, 1977.

6. Rural vs. Urban Locations

In Minnesota, as in many other states, there has been a marked shift of industry to rural areas. The shift, according to some officials, is not to the most rural parts of the state, but to the suburbs and especially to medium-density rural areas, which have a large pool of workers available.

According to Harold Koeck of the Human Resources Development Institute in Minneapolis, garment industries, metal fabrication plants, machine shops, plastics factories, and meat packing houses have moved to rural areas in search of cheaper labor. In some industries like the garment trades, says Koeck, companies are looking to hire farm women at low wage rates.

Wes Cochrane attributes some of the movement of firms from urban to rural areas to be the less unionized workforce of rural areas. He notes there may be particular rural areas which industry might avoid because of organized labor. "They (industry) might have labor problems in one, but not in another."

"Most New Jobs programs are in rural areas," says Stanton Williams, "because these areas are more non-union, have lower pay and have more unemployment." Even union jobs pay less in rural areas, says Williams.

According to Mel Johnson, jobs are locating in rural areas because, "There are fewer unions and wages are lower."

Minnesota's New Jobs programs have been used mostly in rural areas, according to another Department of Education official, simply because that's where most requests come from.

In South Carolina, as in Minnesota, for-industry subsidized training has followed, rather than influenced business location decisions. Reflecting a national trend, industry, especially low-wage, low-skilled industry, has tended to locate in rural, non-union areas. Not surprisingly, South

Carolina, a predominantly rural state, has participated in this trend.

Within the state the trend has been for the lowest wage and lowest skill industries to locate in the most rural areas; others tend to cluster in the existing more urbanized and industrialized areas like Greenville and Spartanburg. By the late 1960s, South Carolina had over 60 percent of all its manufacturing plants in areas classified as rural or small town.

According to some observers, industry has tended to avoid Black rural counties, for fear of unionization. The experience of Blacks in the rural industrialization of South Carolina appears to follow the experience of those other southern states. According to Curtis Toews, a researcher at the Southern Rural Development Task Force at the University of Texas, counties with large Black populations were not sharing in the influx of new industries. "Plants seem to shy away from those counties out of fear that those counties can be more easily unionized than whites." The heavily Black counties of eastern South Carolina, said Toews, were attracting little industry. "In fact, some companies prefer to build new plants in Taiwan and South Korea rather than in a southern county that is predominantly black."[1]

According to Earl Ellis, Director of the Special Schools program, less complex light assembly, and those industries that use unskilled workers and those which use female labor tend to locate in the state's rural areas. It is not the intention of Special Schools to determine where industries locate, says Ellis, rather the training program follows the location of industry. "We are at the mercy of where jobs are."

There is, says Ellis, a perpetuation of existing economic disparities -- "higher paying jobs go to certain areas, lower paying jobs to more rural areas." The problem, says Ellis, might be helped through vocational education in rural areas, but he sees a problem in deciding what to train people for. One has to decide not only what the higher paying jobs will be, says Ellis, but if people are trained, will the industries in fact come to rural areas that need them.

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[1] New York Times, March 29, 1977.

7. The Escalation of Incentives

According to Wes Cochrane, Assistant Commissioner of the Minnesota Department of Economic Development, the more other states provide subsidized job training for industry, the more Minnesota must also provide such training. He cites the example of a Swedish ski manufacturer that had first committed itself to locating in Minnesota, then received offers of training subsidies from Vermont and other states. The company came back to Minnesota officials and said they were re-evaluating their decision -- would Minnesota match the job training subsidies of the other states? "There was no New Jobs money available at the time," says Cochrane, "so the local AVTI (Area Vocational Training Institute) paid for instruction." CETA funds were also used to pay 50 percent of the trainees' wages for 26 weeks. Since the local AVTI didn't have enough ot its own funds to subsidize the company's training, money was shifted to it from the programs of a local AVTI in another part of the state.

The very first project of Minnesota's New Jobs program involved an Iowa portable electric generator firm shifting its location. After using New Jobs to train hundreds of employees in a rural southern Minnesota location, the company closed its Iowa plant.

Minnesota's Education Department claims its New Jobs program helped create these jobs. In other states education officials, economic development officials and CETA officials have often made similar claims for their programs without examining the effect on jobs elsewhere.

For-industry subsidized job training is only one of a battery of incentives states now use in their attempts to retain or attract industries. Nationwide, over 15,000 promotional agencies for cities and states offer industry local and state tax concessions, low-cost factory buildings, low-cost loans or lenient environmental standards. This kind of public entrepreneuring has become so institutionalized that few communities feel they can avoid joining the competitive battle.

"We steal industry from New York," said Peter Bearse, an economic analyst for New Jersey, "and lose it to Pennsylvania."[1] New York politicians, complaining of job losses, have called for a more competitive posture: the state estimated that in the ten to twelve years before 1974, about 50 percent of the jobs leaving were relocating in New Jersey.[2] "What the South has been doing to New Jersey for 15 years," said New Jersey's chief official for attracting industry, "I'm now doing to New York. It's cutthroat, regrettably," he added, "but it's every state for itself."[3]

In the early 1950s few states offered business low-interest bonds for private development; now almost every state offers them. Between 1966 and 1975, the number of states offering tax exemptions on new equipment increased from 14 to 27.[4] Michigan tax officials estimate that by 1986, tax incentives alone -- a small part of what governments usually offer business -- will cost state and local governments $80 million per year.[5] New York City's

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[1] Peter J. Bearse, "Government as Innovator: A Paradigm for State Economic Development Policy," New England Journal of Business and Economics, Spring, 1976.

[2] Report of the Select Committee on the State's Economy, Albany, New York, 1974, cited in L. Falk, "Industrial Inducements: Analysis of the Effect of the Pennsylvania Loan Program on New Jersey," Seventh Annual Report of the New Jersey Economic Policy Council and Office of Economic Policy, Trenton, New Jersey, 1974.

[3] Business Week, June 21, 1976.

[4] Industrial Development, November-December, 1976.

[5] Wall Street Journal, June 30, 1978.

Industrial Development Agency, using tax abatements, tax waivers, and interest rate reductions, estimates savings to businesses can "equal or even surpass the initial project cost."[1] According to Washington's Public Interest Research Group, $18.1 billion dollars' worth of subsidized industrial development and pollution control bonds were issued to business during the 1960s and 1970s. At the present rate of increase, they estimate that over the next ten years, the U.S. Treasury will lose over $21.1 billion in foregone taxes through the use of these bonds.[2]

The effect of regional competition results in job shifting rather than job creation. This shifting is paid for by all levels of government; local and state incentives are coupled with federal incentives, such as investment tax credits, tax write-offs for moving expenses or liquidation losses, and job creation programs like CETA. As the escalation of incentives increases, local, state and federal governments use more tax income for such incentives as job training. At the same time, this competition forces workers in some regions to lower their wage rates and eliminate benefits, or face losing their jobs to workers elsewhere.

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[1] New York City Industrial Development Agency pamphlet (n.d., received January, 1979).

[2] Jerry Jacobs, Bidding for Business, Washington, D.C.: Public Interest Research Group, August, 1979.

8. The Role of Educators in Economic Development

"We're educators, not developers," says Mel Johnson, Director of Program Improvement for the Minnesota Division of Vocational and Technical Education. His role, however, as well as those of other vocational educators in South Carolina and Minnesota, belies the statement.

Both Special Schools and New Jobs programs reflect tendencies in post-secondary education systems of both states to provide technical education to the exclusion of liberal arts education. These special training programs are further removed from liberal arts education than the regular technical school programs. They are often taught exclusively by industry personnel, and if not, the curriculum is custom tailored to industry's prescriptions. As such, the question must be raised -- what is the role of educators in this process?

In the case of South Carolina, the education department helps screen job applicants for traits required by a company. In both states, the education departments serve primarily in the capacity of administering the transfer of government money to industrial firms.

In Minnesota, vocational education officials explained their training programs as direct responses to the requirements of industry -- which includes training for almost any type of manufacturing job. They explain that industry moves to rural areas to find low wage workers and they justify the use of New Jobs training as simply following the path of private development decisions. According to Johnson, "The fact of life in rural areas is that there are no $7 an hour jobs -- for women it's that job or no job at all.... I don't have any trouble with this but there are some that do."

"A job at minimum wage is a good job," says Stanton Williams, "if it keeps that person off welfare, or it's the best that someone can do."

The reliance on business people to determine the direction and content of programs in both states raises serious questions about both the educational content of these programs and the role of the educators involved in them. Educators, often in a well-intentioned effort to promote jobs, are abrogating their responsibility to provide maximum educational benefits to students. Instead they are becoming industrial development advocates, in a position to provide industry with subsidies from public education funds.

Educational and business needs may often overlap. But a business person's need to maximize profit may not in many cases be consistent with training a person in a broad range of skills, which could give that person a possibility of choosing between jobs and improving that person's position.

In negotiating with an electronics firm for a New Jobs project, Stanton Williams was told the company was concerned that workers might be given too many skills and could then move on to better jobs. "They were minimum wage jobs," says Williams, "and they were worried they would lose their employees if they were over-trained. We told them they would control the program, but they were still worried." (my emphasis) They decided against using the program. Business, says Williams, often won't use CETA for the same reason.

In many cases, business' use of New Jobs, Special Schools, CETA and other forms of subsidized training appears to be related more to receiving subsidies than in training workers. This is especially true in low-skilled industries where workers can be trained quickly, have easily duplicable skills, and where large numbers of unemployed are available for the job.

Harold Koeck, an Area Representative of the Human Resources Development Institute at the Minneapolis AFL-CIO, and a member of the Private Industry Council (PIC) of Minneapolis and Ramsey County, explains that on-the-job programs are often more advantageous to the companies than the participants. "As soon as they're (the companies) off OJT, the employees were gone and they (the companies) ask for another OJT.... Even companies that need no training ask for CETA."

In one case the New Jobs program was used to distribute government funds to industry with little regard for the actual cost of training workers. Williams explained he was asked by the Governor's office to estimate how much money would be needed to train a group of garment workers for the Jack Winter Company in Eveleth, Minnesota. His estimate came to $25,000. But in order for the firm to receive a $100,000 grant from the Upper Great Lakes Regional Commission, the firm needed a $100,000 matching grant from another source. "The Governor said we need to come up with it -- I didn't think we needed to spend that much, but I went along."

* * * *

South Carolina's Special Schools training program is perhaps the most directly tied to specific training needs of an industry. The Tech Board and its administrators repeatedly stressed that Special Schools is not an isolated case; the entire post-secondary system, through the sixteen Tech Centers and colleges relies heavily on industry to determine its education programs.

The first priority of the FY 1979/80 for instructional funding, says the Tech Board, is to "provide quality instruction utilizing up-to-date equipment to guarantee graduates with competencies required by business and industry." The promotional material for the state's post-secondary programs stresses the needs of industries, and adapting technical school programs to their needs. One brochure refers to the Tech Board as "alias -- Board for the Prevention of Start-Up Losses (for Industry)."[1] It explains that the original and present mandate of the board is to help people of the state upgrade their technical skills and "to provide existing and new industry with trained, competent initial manpower on a no-cost basis."[2]

According to M.L. Ball, an Administrative Assistant of the Tech Board, "We do not want to produce a graduate that cannot find a job.... People go to liberal arts programs, take psychology, then can't find a job."

"We have some liberal arts," says Robert H. Sandel, Dean of Continuing and Adult Education at the Orangeburg-Calhoun Technical College, "but that's not our cup of tea." Liberal arts courses, according to Sandel, represent approximately five percent of the curriculum at his college and most other state technical colleges.

In addition to providing a base of operations for the Special Schools program, says Sandel, continuing education at his Technical College is offered to industry at nominal cost ($10 to $15 per student per course) to upgrade instruction for industry workers. In addition, special rooms are provided for business meetings, and consultants are made available to industries that request them. If industry needs a special training program the college will develop it for them. "We don't just court them," says Sandel, "we marry them ... we'll do anything that companies ask of us that we can possibly do."

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1. Start Up in the Black in South Carolina. South Carolina State Board for Technical and Comprehensive Education.

2. Ibid.

According to South Carolina's TEC Board's Advisory Council, its mission "was and still is to train the State's population in the occupational skills required by S.C.'s industry."[1] Tom Gjelten, in another NIE paper in this study, reports on the close ties between industry and the Tech Board programs. "You are our customers," Dr. Don C. Garrison, president of the Tri-County Technical College in Pendleton, told a group of industrialists. "If we don't turn out a product that you will buy, we can't stay in business much longer."[2]

For the future a number of administrators stressed that even more emphasis would have to be placed on industry's needs. To do this, young people's attitudes about blue collar work will have to be changed. According to Robert Leak, secondary school administrators and counselors don't understand the kinds of jobs people will be restricted to in the 1980s and 1990s. "In the secondary schools there is a total lack of understanding by counselors of what working is all about," says Leak. He believes future efforts should be aimed at school counselors to better persuade them of the benefits of blue collar work, especially those in industrial rather than craft jobs.

The apparent success of training a tailored and disciplined workforce for industry has rewarded the Tech Board with continued government financial support for its operations. Post-secondary vocational school administrators apparently reacting to this success, stress their own involvement in training directly for industry; some take special care to refute any claim that its graduates are not able to enter the workforce directly. "The secondary program is the delivery system for manpower in the state," says Dr. Moody Oswald. "It is not true," he says, referring to past criticism, "that the secondary (voc-ed) program is a pre-voc program." In the past, says Oswald, post-secondary programs "ignored the secondary system as the delivery system for manpower."

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[1] Evaluation Digest 1978-1979, South Carolina Advisory Council on Vocational and Technical Education, Columbia, S.C.

[2] Tom Gjelten, Tri-County Technical College: The Task of Serving Industry in South Carolina. Draft report for the National Institute of Education, Rural Vocational Education Study. April 18, 1980.

Oswald, echoing post-secondary educators, stressed the need to redirect resources towards training for more blue collar jobs. "Many people shouldn't be in college tracks, since there are no jobs when they get out of college.... We need more vocational training, not college tracks."

Oswald also stressed the new use of secondary school facilities for the Tech Board Special Schools programs. "We're trying to get this information on our Special Schools in the Tech Board's propaganda material."

In South Carolina, officials in both the state Tech Board and Development Board take pride in their close working and philosophical relationship with each other. At the very beginning of the program, the Technical education personnel were housed in the Development Board offices. The close ties between the two have remained. In many cases education officials are virtually interchangeable with business development personnel. Some Tech Board officials came to the education agency directly from business or from the Development Board. Earl Ellis, Director of the Special Schools program, was a former Assistant Director of the Development Board. He also served in management for the Monsanto and Dupont Companies. Tech Board Chairman Francis Bell is an executive with a large textile firm. According to Ellis, it is "the unanimity of opinion" at both the Tech Board and the Development Board that business finds especially attractive.

The Tech Board, according to G. William Dudley, its Executive Director, provides prospective industries with surveys of wages and benefits for various state industries to show how favorably South Carolina compares with other states. "Not many (state) education departments are involved in this," says Dudley. "Industry needs this to be on target with their needs." Dudley is an ex-officio member of the State Development Board.

Max Heller, Chairman of the State Development Board, echoes the same concern for connecting the needs of business with the state's education policy. According to Heller, a former shirt manufacturer and former mayor of Greenville, the state's largest industrial city, education at all levels from basic elementary school through university must be tied to industry's needs. "Training," says Heller, "should be by the bench, not by the book. Training must be practiced hands-on, not theory."

Industrial training, according to Heller, must involve people of all levels of ability if industry is to get the personnel it needs. "If the Tech system gets only the dummies," he cautions, "they won't go anywhere."

The ties between the Development Board objectives and those of the Tech Board exists at both the state and local level. "Industrial development efforts are inseparable on both local and state level," says Thomas J. Ford, Director of the Orangeburg County Development Commission. The commission's office, which helps prospective industries find development sites, is housed at the Orangeburg-Calhoun Technical College. "The Tech Board and Development Board," says Robert H. Sandel, Dean of Continuing and Adult Education at the college, "are like sisters, they're inseparable."

9. Conclusions of the Study and Implications for the Future

The experience of tailored-for-industry programs like New Jobs and Special Schools raises a number of questions about both the effectiveness of the program in creating jobs and, more generally, how they will influence future local and national education policy. Clearly, since the inception of the Special Schools program in South Carolina in the early 1960s, many states have initiated them.

The conclusions, broadly stated, are as follows:

1. The extensive use of state for-industry subsidized training programs appears, especially in the case of South Carolina, to benefit industry primarily as a program to screen potential employees for labor union background, behavioral, and other characteristics. Not only does this raise questions about the educational content of the programs, but it also raises concern about whether the use of these programs is in effect undermining federally protected rights of state residents.

2. In both states, for-industry subsidized training programs reflect increased emphasis being placed by educators in training people for existing industrial jobs as opposed to providing broader, more general education and skills. The content of the training programs lacks any relation to a set of priorities for determining which kinds of job training might be most beneficial to an individual. The rationale is often, any jobs are better then no jobs, therefore any kind of training is better than no training. The content and direction of the programs reflect the industry's specific needs rather than the student's.

3. Both state programs raise questions about the use of funds from federal agencies and programs to help individual states attempt to compete against one another for industrial development and jobs.

4. In some cases the use of job training funds appears a simple outright subsidy to industry as opposed to funds actually needed for job training.

5. There has been no significant evidence from either state to demonstrate that the subsidized aspect of these programs plays a critical role in either expanding or maintaining jobs in a state. The available national evidence suggests that factors other than subsidized training, such as attitudes towards unions, wage rates and access to markets appear much more critical.

The increased use of education departments to provide programs in which industry effectively determines the entire program, from location, to content, to criteria for choosing suitable trainees, has profound implications for the future of state-supported education. Assisted by public education agencies, these programs are leading to more limited and often segregated opportunities for education, training, and jobs.

The establishment of "closer linkages" between the policies of education and economic development agencies does not of itself appear to improve educational opportunities for state residents. Indeed in cases where economic development policy supports regressive practices of industry (e.g., the avoidance of minority locations) and where education agencies in turn support and promote these policies, closer linkage simply serves to reinforce limited educational and job opportunity for state residents.

These programs contribute to the spiralling escalation of financial incentives that states offer industry, which increase the public costs of running government and providing services. Such competition between states also leads to the downward pressure on wage rates and undermines the job security of employees through the country. But perhaps the most disturbing quality of for-industry subsidized job training programs is their effect on the current and future role of state-supported education.

For-industry training often appears as an easy-to-implement, politically attractive approach; is a highly visible way for state education officials to produce seemingly quick "educational" results. After a few weeks or months training is complete and people have jobs. Presumably both an educational and job-creating role has been performed, fewer people are unemployed, more of them will pay taxes, and everyone in the state benefits.

The question remains however, how much real education has been involved in this process. Is it the role of educators to train for the tailored needs of industry -- or to more broadly prepare people for the life situations they will face, including work, citizenship (participation in government), to take advantage of cultural opportunities, to choose between career opportunities?

The subsidized job training programs are, after all, training -- usually for a very specific, simple, well-defined task, often performed on the assembly line of a factory. The training for many of these jobs has been traditionally done by an industry itself. Indeed in many of the subsidized training programs studied, it was the industry's own instructors that provided the training.

What then is the function of educators in these programs? For the most part, they act as a conduit for moving state and federal funds for job training to industry. In some cases they participate in the process of screening individuals for the traits attractive to industry. This function in fact involves little, if any, educational content.

The reason for having education departments involved in these programs appears to be to meet government requirements for the distribution of education funds, in effect to be able to use funds earmarked for education purposes for industry training purposes. Minnesota's New Jobs program, for example, used federal education discretionary dollars to pay for private industry's instruction of workers. Minnesota's AVTI's and South Carolina's Technical Centers and Colleges, built with the aid of federal money, house New Jobs and Special Schools programs for industry. In South Carolina, a separate education department was created (the State Board for Comprehensive and Technical Education) for the purpose of training directly for industry. But to meet federal requirements for receiving education money, the new Board was set up to be officially part of the State Education Department. State education officials acknowledge there is in fact little direct relation between the agencies and their purposes. Indeed, Tech Board administrators take pride in their direct ties to industry and the lack of broad education curricula in their programs. Their mission, they believe, is training students for the jobs that industry has available.

Many educators involved in the special training programs expressed the belief that liberal arts education is simply not the function of vocational schools -- in some cases making the point that such education should come after the basics of learning a trade and getting a job. Mel Johnson of Minnesota's Division of Vocational and Technical Education, notes, for example, that there are no liberal arts taught in the programs he administers and that the role of vocational programs is "training people to do a job and fit in, to take orders.... If you then get a good job and you have cultural interests you can do it later. But if you're liberally educated in our society and don't have a job, you can't participate."

If training for available jobs, aided by the seeming educational "success" of special training programs, becomes the mission of educators, and liberal arts is deigned a peripheral activity, then the future of public education could be seriously jeopardized.

Vocational administrators in South Carolina, citing cost considerations, are already considering the alternative of shifting more education to the workplace. The need to train for the use of rapidly changing and expensive technological equipment is straining the South Carolina TEC system's ability to attract industry, says Dr. Don C. Garrison, president of the Tri-County Technical College. "There's going to have to be a fundamental change in the teaching-learning process.... I've got to wonder if we can maintain the hands-on approach in the classroom. I think we're going to have to go to co-op education and apprenticeships."[1]

What is apparent from interviews with administrators of special for-industry training programs and of the technical schools of which they are a part, is their strong disdain for education which is not specifically tied to a job. This attitude is likely to be reflected in their resistance to public expenditures for education which is not immediately job-producing.

Determining training programs strictly according to industry's need could create still other problems. Since training in the for-industry programs is made available to a community only after an industry has decided to locate in that community, many of the poorest rural communities could effectively

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1. Gelten, op. cit.

be by-passed; education monies which might have been used to assist these communities' education programs are being shifted to other communities, according to which community industry finds most attractive.

If for-industry training programs become a model for future vocational education policy, both the content and the availability of vocational education could become seriously limited. Not only will vocational education shift increasingly toward narrower training, but this training will be restricted to residents of communities that industry considers desirable, and within these communities, to residents whose racial and sexual characteristics fit industry's preferences.

Versions of this scenario already exist. Vocational monies distribution through the Special Schools program in South Carolina and New Jobs in Minnesota has been determined by industrial location decisions. There is little, if anything, in the programs to suggest that the public, through educational officials, is involved in deciding their educational content. Curriculum, and criteria for who gets trained and what they get trained for, are completely determined by industry; indeed, as one education official in Minnesota pointed out, an industry fearing that workers might be "overtrained" and prepared for higher-paying, more attractive jobs in another industry, was assured that the company, and not the state education department, would control the program.

Although for-industry training programs are technically housed within the state education departments of both South Carolina and Minnesota, they effectively operate under the leadership of officials or entire agencies committed to providing industry with maximum control over educational programs. In the case of South Carolina especially, a separate Technical Board was created for the express purpose of supporting industry's manpower needs, with a system which allows education officials to respond with short notice training programs. This is a system technically within the state educational system, in order to receive federal funds, but which effectively operates autonomously.

The creation of separate education departments whose main function becomes the satisfaction of industry's employment needs is a serious digression from the original purpose of public education. The words "employment needs" are stressed here because the role of educators has not simply digressed from broad education to limited training, but even the training role has in many cases been superceded by a screening role.

In South Carolina, Special Schools helps skim only the most suitable applicants according to industry's criteria, which as state officials point out, often translates into screening out people with union backgrounds or sympathies, avoiding areas with high minority populations, and assigning jobs by sex-role stereotypes. In South Carolina a quota system which protects existing textile industries from losing their workers effectively allows the Special Schools programs to accept only a limited number of applicants from textile firms.

The question of industry's influence over public education is an old and controversial one. Today's use of education monies for industry training programs has its direct antecedents in programs separating public vocational training that were promoted by industry during the late nineteenth century and throughout this century. Such programs were not only opposed by liberal educators like John Dewey, but by trade unions as well. In 1915, the American Federation of Labor, concerned about the influence of industry on public education curriculum and the growing separation of vocational and public education, noted:

> It is for labor to say whether their children shall receive a real education in our public schools, or whether they are to be turned out as machine-made products, fitted only for work and to become a part and parcel of the machine instead of human beings with a life of their own, and a right to live that life under rightful living conditions.[1]

Two years earlier, John Dewey advocated opposition against "every proposition, in whatever form advanced, to separate training of employees from training for citizenship, training of intelligence and character from narrow industrial efficiency."[2]

South Carolina is perhaps one of the most advanced examples of the use of public education programs to directly support industry's needs. The enthusiasm with which some legislators and educators in Minnesota, as well as those in dozens of other northern and southern states, are adapting similar programs could indicate a very different kind of educational opportunity for people than the broadly based educational programs that were the vision of the nation's public education advocates.

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1. Martin Lazerson and W. Norton Grubb (eds.), American Education and Vocationalism (New York: Teachers College Press), 1974.

2. Ibid.

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APPENDIX 3

Industrialization in the Rural Southeast: The Role of Education

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Nationally during the last two decades, more new industrial jobs have been created in rural areas than in metropolitan centers. This reverses the previous historical trend of concentration of industrial expansion in or near cities and has been concomitant with the demographic turnaround whereby rural America has experienced faster population growth than urban places (33). The Southeast has gained a large share of the increase in rural industrial development by adding over fifty percent of all the nation's rural manufacturing jobs produced during 1962-1978. In the same period, almost forty percent of the private-sector, service-performing jobs (in trade, finance, professional and personal services, etc.) added to rural labor markets has been recorded in the Southeast (27). These figures reflect the high rate of broad-based, industrial growth which has occurred throughout the Southeast as a whole, but particularly in its rural areas (65).

"Industrialization" (or "industrial development") sometimes is used to mean the establishment of new or expanded manufacturing plants to the extent that such industry becomes a major element in local employment structures (33). However, because job development in the rural Southeast has encompassed such a wide array of manufacturing and nonmanufacturing sources, the concept of "industrialization" applied here will use its more comprehensive sense to include expansion of all nonfarm, profit-making enterprises, i.e., all nonfarm business. This allows a more accurate portrayal of business and employment patterns in the rural Southeast where so much of recent growth has occurred in service-performing industries and where similar growth is projected for the future, despite the continuing importance of manufacturing (16, 27, 76).
To clarify another conceptual matter, "rural Southeast" will refer to small

towns and sparsely populated areas in the region extending from Arkansas and Louisiana eastward to the Atlantic, and from Kentucky and Virginia southward to the Gulf.

Background of Rural Industrialization

Several factors have led to increased rural industrial development in the Southeast and other regions. One concerns the efforts by the federal government through various legislative acts and programs to promote rural economic development. Federal policy has been designed to achieve such goals as balancing population distribution and economic growth, reducing unemployment, obtaining greater income and less poverty for rural people, upgrading the availability and quality of basic services, absorbing workers released from the farm sector, and reducing massive rural migration to cities (5, 70, 80, 82). Another factor is the determined effort by some states and local communities to bring industry to rural areas. Using a variety of techniques, ranging from special industrial recruitment agencies, to inducements like tax exemptions or other subsidies, state and local governments have done much to encourage the industrial activity that many citizens and political leaders see as the chief means to overcome economic problems (5, 36, 70). But the private sector has perhaps supplied much of its own impetus for rural industrial development by perceiving special locational advantages in rural places. There, labor costs are usually less, land is cheaper, raw materials and water are more readily available, while improved transportation/communication networks now give access to large markets and supplier sources (5, 15, 30, 80).

The literature on rural industrialization contains some fairly extensive analyses of the advantages, as well as disadvantages, which result from it. There is little doubt that, in the Southeast as elsewhere, industrial growth generally brings greater economic opportunities to local communities. The economy becomes more diversified, there are more options for rural workers as the labor market expands, incomes increase, and many multiplier effects occur as payrolls diffuse through the local economy to help encourage capital accumulation. Indeed, advantages are so numerous that a majority of rural residents who have experienced industrial development want more (5, 68, 70). Yet, there are clearly negative effects which cannot be ignored. As incomes increase, so do prices and taxes as the general cost of living goes up. Where industrialization is accompanied by large population growth, existing facilities and service delivery systems are strained beyond effective capacity. Economic benefits may "leak" to other communities because workers spend their earnings elsewhere. Most damaging is the related fact that new job opportunities often do not go to the local underemployed but to commuters or in-migrants who have more education and better skills. Thus, community expectations about employment benefits are sometimes unrealistically high (5, 47, 56, 68, 69).

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The latter point underscores the importance of a well-trained, local labor supply in the industrialization process. Communities that can offer such a work force will probably enjoy a locational advantage over areas which cannot do so. While it is true that many industries locating in the Southeast have needed only low- or medium-skilled workers, others have needed more highly skilled employees to accomplish production and service goals. They have also required a talented, educated managerial staff to guide operations. When skilled employees and managers are not available locally, industries may have to bring in personnel from the outside, or perhaps even be forced to relocate their operations. In both cases, the potentially significant economic and employment advantages to a local community will not be realized (30, 34, 53). The critical contributions of a trained labor force to industrialization in the rural Southeast will be a major theme in the following sections.

Four Problems Associated with Industrialization in the Rural Southeast

Review of the research and development literature on rural Southeastern industrial development reveals four key problems which are at least partly amenable to educational solutions through policies designed to develop a skilled labor force. There is no intent here to argue that education alone can solve all problems associated with industrialization, only that it has an important *role* to play in overcoming the special difficulties to be examined. Policymakers in both the public and private sectors should consider this role when formulating measures to promote rural industrialization or deal with its consequences. By implication, educational solutions could be determined relevant to other specific issues not considered here.

#1. *Tendency of industries to locate elsewhere than in areas with large numbers of poor.* Despite considerable economic expansion in recent years, the rural Southeast is still the greatest poverty zone in the country. More persistently low-income counties with chronically deficient human resource development can be found there than any other region of the country (13, 15, 16, 26). Industrial growth within the rural Southeast has tended to avoid poor counties, most of which have heavy concentrations of underemployed whites and blacks. But even when enterprises have located in the areas, they have usually hired local people for low-paying unskilled or semi-skilled jobs, while better paying positions have gone to in-migrants (38, 67, 69, 71). Although other factors like racial/ethnic discrimination may have a bearing, undoubtedly the lower quality of the labor force greatly affects the situation. This labor force is composed mainly of the poor who have received relatively little schooling, formal skill training, or even on-the-job training in many cases (66, 68, 79). The implication is that poor rural peple living in areas with the greatest need for industrialization are being bypassed because they do not have enough skills or education (62, 67).

#2. Shortage of rural residents with managerial expertise. The transition from an agricultural to an industrial based economy in many places in the rural Southeast means that workers coming into the new plants and business firms need—beyond training for the new work functions they must perform—effective guidance by supervisors. Effective management is always important, but it is especially critical for encouraging the highest productivity from workers who come from economically disadvantaged backgrounds (23). However, there is evidence of a shortage of local managers with expertise. Many rural firms are only marginally successful because of deficient management; they have high personnel turnover rates and inefficient production because of poor supervisory practices. Companies often find it necessary to import their managers from metropolitan areas where there are more and better trained personnel with the managerial qualities necessary to plan objectives, organize resources, and motivate workers to do the job. Not enough rural residents have been trained in these special skills to enable them to move from employee to management status (7, 32).

#3. Slow growth of high-wage, high-technology industries. There is a fairly high consensus of opinion that industrial growth in the rural Southeast has been too heavily concentrated in labor intensive, low-wage enterprises with insufficient emphasis on the development of higher wage, technology-oriented industries now constituting the fastest growing segment of the U. S. economy (25, 39, 46, 61, 67, 68). Although some recent improvement has occurred in the ratio of high- to low-wage industries in the rural Southeast, the large pool of underemployed and partly skilled labor continues to attract labor-intensive businesses offering relatively low wages and the least stable operations. They are the industries most likely to close or relocate, while providing wages which have not brought the earnings of rural workers up to national averages (25, 39, 68). Projections for future growth in the Southeast (both rural and urban areas) predict the greatest job expansion in industries employing scientists, engineers, technicians, and other highly skilled workers with the technological background to manage complex equipment and processes. That may not happen, however, if the labor force in the Southeast lacks the educational foundations and skills training to meet requirements of the new industries (57, 76).

#4. Unpreparedness of rural people for small business opportunities. Some observers have argued that analysis of industrialization in the rural Southeast has placed too much stress on large-scale industry. They see the need for increased opportunity for self-employment opportunities in small businesses to satisfy unmet local demands for services or products. Growth of successful small concerns often attracts imitators along with others dependent on goods/services generated by the new businesses (28, 50, 63). Unfortunately, rural residents sometimes do not recognize opportunities in entrepreneurship or, when they do, are not always sure how to pursue them. Technical advice and practical guidance on how to overcome the initial obstacles to establishing a business would be very helpful. So would training in the management and technical operations needed to maintain a small business, including forms of marketing, pricing policies, hiring practices, etc. (6, 28, 75). However, entrepreneurship as a career opportunity has been generally ignored by the educational system, particularly in rural areas. Schools and training centers could do more than just prepare students for work in large, existing industries but also teach them entrepreneurial skills as well, which would be particularly valuable for economically disadvantaged residents in the rural Southeast much in need of self-help and community leadership initiatives (50, 58).

Upgrading the Education and Training of the Rural Poor

General Education. A major cause of the failure of industries to locate where the rural poor are heavily concentrated is the generally lower quality of the labor force. General education has a role to play in improving labor quality by increasing the basic skills and educational attainment of people already in the work force or others who will enter it. But poor people in the rural Southeast often live in places which cannot provide the variety of educational services found elsewhere because of inadequate facilities and few financial resources. Underinvestment in educational development is reflected not only in low attainment but in relatively lower achievement and the gradual decrease of motivation (16, 32, 79). The rural poor could use a whole range of better educational services to help improve their condition: expanded curricula, special teacher preparation, better library facilities, greater access to counseling, new postsecondary offerings, more support staff, more extensive preprimary and adult education programs, and so on. Government is the first logical choice, of course, to provide the services through more equitable funding arrangements or new delivery mechanisms. The private sector, however, could do more to insure that schools have adequate resources by supplying some of the needed services through their own community development activities (8, 19, 41, 67).

Programs to upgrade education of the poor can be effective only if combined with efforts to spur economic growth. Simply increasing the educational levels of the rural poor without providing jobs in which more schooling can be utilized will probably result in further migration of well-educated rural people to urban areas where there is greater demand for their abilities. Education and rural industrial development are related in another way. Many jobs now available to the poor in Southeastern rural labor markets do not require high levels of schooling. There is little reason to get advanced formal education to enter well-paying, higher status occupations when so few exist. But not having more schooling virtually guarantees ineligibility for whatever better opportunities do occur (16, 48, 79). On the other hand, development may not proceed beyond elemental stages without a capably educated labor force.

Vocational Education. For the same reasons, vocational education programs should be closely associated with economic and industrial development. Through vocational education, students learn about work along with how to perform work roles, two aspects crucially important for the Southeastern rural poor who need to understand occupational opportunities first and then have a wide range of career training alternatives. Yet, there is little point to their education if they are trained for jobs that do not exist or develop unmarketable skills. This is precisely why it is necessary to coordinate activities to achieve rural industrial expansion (which produces more jobs) with vocational programs to train workers (preparing them for the new job openings). States in the Southeast have embodied such a philosophy in the extensive systems of community colleges and area vocational/technical centers, many serving rural citizens, that have been created in recent decades. Other agencies, like the Appalachian Regional Commission, continue to aid the institution-building effort to meet the vocational education needs of industry (4, 53, 74).

Despite the fact that vocational training institutions are now located in many rural areas where they were not present before, access is still a problem for poor and isolated residents who cannot afford travel costs even if transportation is available (19, 64). Mobile facilities and satellite training centers set up in local communities have been somewhat effective in overcoming the access problem and could be utilized more. But another method would involve supplementing service delivery systems like area vocational centers and mobile facilities with local community training resources. For example, a contract procedure can be set up linking students interested in learning a particular skill with a person possessing that skill within the community. A negotiated contract will identify costs of training for a businessman/instructor to get students to a specified proficiency level. Contract vocational education uses untapped skills found locally, reduces the need for more institutional equipment and personnel, and makes access to training less difficult (28).

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work site training

Employment Training. While better general educational services and vocational instruction are certainly important, employment training programs that raise the job skill levels of the rural poor may be the most direct method for achieving employment growth (79). Training can be job specific, or for generalized higher skills needed for better jobs or in basic education areas like math skills. Such programs could help ensure that disadvantaged residents are not bypassed by the employment benefits generated through rural industrialization. By no means should employment training be confined to public direction alone; private firms and unions can be encouraged to participate in or independently conduct training assistance projects, especially where there are large supplies of unskilled workers (1, 70). Unfortunately, several obstacles hinder the full realization of objectives. Relatively few rural governments or private organizations have enough expertise in planning and delivering employment training services, a notable problem in rural Southeastern counties with large minority populations (21, 68).

Even when a rural employment training operation is established it often is not effective in reaching low-income, underemployed persons because they lack knowledge about both the existence of the local program and the procedures required to gain admission to it (22, 66). Poor access to distant training sites blocks some prospective users because they cannot afford the excessive travel costs. Financial/technical assistance as well as "outreach" information activities to recruit, tutor, and place rural workers as jobs emerge would be beneficial. Employment training can be made a more effective instrument for enhancing the capabilities of rural poor people and attract industry impressed by their work readiness (68, 72).

Industry Services Programs. Most states in the Southeast have combined features of vocational education and employment training in special industry services or "start-up" programs, usually coordinated by a state agency. They are primarily designed so new and expanding businesses can have a skilled labor force ready to go when production begins, thus reducing start-up time. The programs offer a way for public agencies to participate in recruiting and training workers for private industry who have needs beyond those met by ordinary employment training or vocational education curricula. Industry services programs are short-term, focus on small groups of trainees instructed in job-specific tasks, employ vocational education or industry personnel as instructors, and use schools or company plants as training sites. They have become a major industrial recruiting tool by furnishing businesses with a tailor-made labor force of qualified workers, and they are popular with community residents who can acquire the skills necessary to enter jobs available almost immediately (31, 73).

These programs seem quite ideal for training poor, underemployed workers and have been partly promoted as effective means for bringing such workers into the industrialization process. But analyses of industry services programs in the Southeast have shown that they are more successful in attracting industries to counties already having favorable employment conditions, high educational levels, and industrial development. Counties lacking similar characteristics, in other words areas where the poor are concentrated, benefit less from "start-up" training which appears to have only a marginal impact on upgrading work forces and affecting industry location in places needing help the most. A stronger attempt therefore must be made to focus the industry services approach on training disadvantaged workers and inducing business to locate where such workers can contribute valuable learned skills (77).

Preparing Industrial Managers

Vocational Education. The chief goals of any management training program are to improve productivity and reduce turnover of personnel resulting from poor management. An additional goal, important for consideration here, is to utilize the experience of existing employees by helping them move into supervisory/managerial roles. When promotion from within occurs, higher status positions often go to local residents rather than outsiders. Promoting employees from within is not an effective policy, however, when educational deficiencies do not allow them to do their work properly. In some traditional industries in the rural Southeast, persons may be advanced to supervisory positions with relatively little formal education or special training. Pressures created by advancement can be impossible to handle without instruction in basic communications skills and human relations (7, 81). need There are several ways to equip existing or prospective managers with the necessary skills. Companies may undertake their own training programs, a method to be examined shortly, but vocational education is a viable alternative not always given the attention it deserves.

Some of the vocational/technical centers in the Southeast have instituted on-campus programs to upgrade industrial supervisory personnel through courses in principles of management, communications, and labor relations. The courses may be general in nature or "custom designed" to meet the unique needs of particular industries trying to improve their management resources. Similar instruction is carried out by vocational education personnel at the work site according to company requirements. In either case, the company bears most of the expense by paying tuition and perhaps even covering instructional costs. Vocational education institutions strengthen their role as a contributor to industrial development while expanding their services and enrollments; in return, business firms receive the benefits of a more highly skilled managerial staff (20, 81). Greater application of the techniques of linking vocational education need and industrial management ought to be explored.

Extension. An even more neglected source of opportunities for the managerial training of rural people is the Extension Service. The Extension system is a cooperative arrangement embracing federal, state, and county agencies in the attempt to extend educational programs from land-grant universities to local communities. Originally, it placed emphasis on teaching farm people useful skills in agriculture and home economics but now offers more subjects to a wider constituency. Programs are conducted locally by county Extension agents who receive administrative and research support from the state land-grant university. Extension personnel literally have decades of experience in helping to develop managerial competencies for individuals pursuing farming and other agriculturally oriented enterprises. In recent years, their expertise has been made available to nonagricultural industries where management skills for the effective use of labor are emphasized (7).

Extension staff members in the rural Southeast and elsewhere have conducted workshops that enable managers to guide employees more productively in setting work objectives, assigning responsibility, and rewarding and disciplining performance. Other sessions have been held to train managers to become better trainers themselves so they may undertake OJT activities for upgrading employee skills (7). The "how-to-train" employer/manager development workshops thus become indirect means to serving better skills training for employees, a notable contribution when companies have large numbers of disadvantaged workers and must instruct them on-site using regular supervisory personnel. The Extension record in directly training disadvantaged and minority rural residents has been varied, though, and leaves room for new initiatives (18). Since most Extension management preparation programs focus on small businesses, further discussion will be reserved for the section which treats that subject.

Company Training. As noted above, private companies do pay for the training of their personnel at various outside facilities like vocational institutes and send executives to special courses at universities (11, 35). But often they provide their own in-house programs in which company human development specialists conduct teaching activities in management technology and other fields. So extensive have company training programs become that they are now a major part of the nation's educational effort. Millions of people participate annually in some form of company training to increase their skills, qualify for better positions, learn technical operations, or supplement their schooling. In design and method, company training programs have furnished innovative examples for the formal educational system, especially in such areas as the adoption of instructional technologies and the blending of classroom study with problem-solving experience (35).

Although there are no studies known to this author on the use of company training to enhance managerial proficiency in rural Southeastern industries, the practice probably is as widespread there as elsewhere in the country. The nature of modern industry everywhere requires training adaptations to almost continuous changes in the skill and knowledge needs of business operations. For supervisory/management duties to be performed adequately, managers must have access to an accumulating body of knowledge ranging from operations research to the behavioral sciences. They need practical information about government regulations and other noneconomic influences affecting the work environment. Guidance is also essential in human relations matters like identifying "high potential" workers or providing psychological "motivators" to induce employee satisfaction and productivity (23, 35). Company training, as an instrument for preparing rural people for managerial positions, has almost limitless possibilities.

Aiding Growth of High Technology Industry

Company Training. Projections of future industrial growth in the Southeast (both urban and rural areas) indicate that the greatest expansion will take place in enterprises highly oriented toward technology, e. g., instruments, aerospace, telecommunications, electronics. The forecast for even traditional industries like textiles is one of increasing technological dependency as operations grow more and more automated (9, 20, 29, 76, 81). In the high technology production processes these concerns must employ, the knowledge required to achieve producion becomes increasingly complex. Their products are less the result of investment in raw materials and unskilled labor than investment in scientific/technical knowledge. As a matter of fact, knowledge is so essential that a whole new class of service workers is entailed, people who are skilled in generating and transmitting the information on which high technology industries depend (9). The growth projections just mentioned will be illusory, however, unless large numbers of both blue-collar and white-collar workers possessing well-developed scientific/technical expertise are available.

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Companies dependent on high technology can do much themselves to ensure an appropriate labor supply by training their own workers. As new production processes make some skills obsolete, particularly ones involving simple and repetitive tasks, new skills can be taught to fill more complex technical roles. Industries gain by turning a human resource investment into better work performance and productivity, ultimately improving their competitive position. Workers increase their knowledge base for expanded skill development while qualifying for more rewarding positions. Persons unable to adapt to a changed work environment may find their services in little demand as many less-skilled jobs are eliminated. Management and labor both have great incentives to promote company training programs, and both are already doing so in certain high technology industries which train their own computer specialists, engineers, equipment maintenance workers, and others, because of rapid changes demanding the constant refocusing of worker skills (14, 29, 35, 57).

Vocational Education. Companies cannot be expected to carry the entire burden of affording technological preparation for their employees. General and vocational education resources could also be used for this purpose. Vocational institutions have an especially important role in training more highly skilled workers in the new technology. There is evidence that vocational education institutions in the rural Southeast are already well aware of their responsibilities and are acting to establish programs which will help supply a labor force capable of supporting the growth of high technology industries. Rural vocational schools are now teaching technical courses formerly unknown in rural curricula. Secondary and postsecondary institutions are initiating training programs in energy development such as coal mining technologies, oil production/processing, and solar energy usage (2, 40, 55, 81). Further activities within the vocational education system could greatly assist future rural industrialization in the Southeast.

But fulfillment of that objective is hampered by a difficult problem faced by vocational education administrators. How do they maintain up-to-date equipment in the classroom for instructional purposes when the equipment is so expensive and the technology it represents changes so quickly? Classroom based technological training becomes less applicable in a realistic manner under those conditions (20). One alternative solution is to encourage industries to donate equipment to vocational schools so they can set up work-like simulations on campus; some companies already have done so with good results. ? Or the schools could maintain programs in the basics of technical instruction while leaving actual training to be handled entirely by companies on-site. A third alternative combines features of the first two in that vocational schools provide basic instruction and some advanced teaching on classroom equipment, but the bulk of the latter occurs at industry locations through programs coordinated by the schools. Vocational education faculty and company experts could both participate in cooperative training programs (20, 81). Educators undoubtedly will have to consult with industrial managers to determine which option is most appropriate for their area.

General Education. The intellectual foundations of modern technology lie in science and mathematics. Without thorough preparation in the two disciplines, rural Americans will not be ready for advanced technological training even if public and private organizations make more opportunities available. Rural schools have experienced historic deficiencies in science education because of inadequate or absent laboratory facilities, and in both science and math instruction because not enough specially skilled teachers are present. Nowhere are the shortcomings more manifest than in the rural Southeast where national assessment tests have shown students scoring lower than pupils from other regions on every aspect of science and math: knowledge, skills, understanding, and application (43, 44). Moreover, scores have been declining in the Southeast, as has been the case in every region, reflecting a grave national trend with implications for America's future technological competitiveness in world markets. Comparative data indicate that American students now are weaker in math and the physical sciences than their counterparts in other industrial nations where more years of study are required in those subjects (42, 52).

There is thus a national stake in improving the math and science skills of all the groups, including rural Southeasterners, who have most serious needs. The public sector can contribute through increased funding, more in-service education of teachers, emphasis on math and science instruction during high school years (one-half of all students take no science after the 10th grade), and special programs for the disadvantaged (10). The private sector could do much to supplement efforts by offering company personnel as instructors in classrooms, bringing in students for on-site instruction by industrial scientists and engineers, conducting summer training programs for teachers, and giving laboratory equipment to schools (10, 78). Perhaps it is also time to consider technical competence in science and math as an indispensable part of basic education.

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Educating for Entrepreneurship

Extension. The Extension Service has long devoted attention to management and production methods in farm enterprises. It is now doing the same for small, nonfarm businesses operated by rural people in the Southeast and other sections of the country. Management is the key to a successful small business operation and Extension offers management education workshops on critical problems facing a small business owner. The mechanics of starting a new enterprise may seem obvious to everyone except those who have tried to deal with the financial, legal, and social problems involved in doing so. Extension furnishes a nearby information source where rural residents can go to at least learn fundamental techniques of starting and operating a small business while obtaining awareness of other, more advanced or specialized knowledge sources. Extension entrepreneurial development programs can serve a very useful function in encouraging only well-informed people who are fully aware of risks and requirements to pursue the goal of a small business venture. Instruction alone in finding potential lending sources, e. g., banks or government agencies, would be extremely helpful. If that is added to training in objectives planning, time management, performance appraisal, communications, and financial management—that one has a quite viable program for assisting the prospective business owner. Even existing owners can profit from such Extension entrepreneurial activities (37, 60, 75).

Despite its potential for helping the rural entrepreneur, the Extension small business development program is still relatively limited in scope. The service's more traditional functions continue to have priority and receive the largest resources. There do not seem to be any specific analyses of the program or any systematic evaluations, perhaps because of its small nature. However, evaluation of other Extension programs shows some problems that probably apply here as well. Few linkages exist between Extension and other training agencies to strengthen its complementary role. Extension personnel do not have enough in-service training to familiarize them with business and employment training needs. And, as pointed out earlier, there is insufficient participation by minority groups (18).

Vocational Education. Vocational education has traditionally prepared youth and adults for jobs which would make them workers under employers who direct large-scale business concerns. It has not done a great deal to train students for business ownership, with the exception of some programs in vocational agriculture and distributive education. While other courses have focused on the American economic system and business management, they have been mainly intended to prepare students to be well-informed citizen/employees, not potential entrepreneurs (6, 28, 50, 58, 63). There is no reason why vocational education students should not have the opportunity to enter a carefully planned instructional program to help give them the competencies required to be successful in business ownership. Entrepreneurial development programs can combine resources (many of which already exist) such as courses, texts, materials, business theories, and teaching expertise with hands-on business experience for trainees. Although the personal characteristics of achievement motivation and creativity possessed by prosperous businessowners cannot be taught directly, they are analyzable to encourage student self-direction. These programs could be productively instituted at secondary as well as postsecondary levels (6, 58).

For rural people in the Southeast where the range of small business models is more limited than in cities, exposure to diverse business environments is critical. They must be made aware of entrepreneurial skills in the classroom, of course, but they also should have opportunities to observe and practice the skills through contact with a variety of self-employed people. Effective student projects involve the direct help of businessowners who can show graphically how decision making, risk taking, and using information play central roles in business operation (59). Not only students but vocational education instructors may profit by direct work experience in the private sector. The new skills gained and processes learned assure that practical know-how will be passed on to students to prepare them realistically for the school-to-work transition and give them a better choice regarding the types of business opportunities open (54). Teachers and students can also learn from business personnel who come to the schools and teach skills there, in effect becoming adjunct faculty resources to vocational institutions (51, 78).

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Training by Community Enterprises. One cannot consider only formal education channels or outside agencies as sources for entrepreneurial development. Rural communities in the Southeast have already done much themselves to organize locally-owned small businesses and educate their residents in the skills necessary to operate and expand the enterprises. For example,

Summary

In this paper, the contributions of educational resources to the growth of nonfarm enterprises in small towns and sparsely populated areas of the Southeast region have been explored. Review of the research and development literature concerning industrialization in the rural Southeast has disclosed four major problems which are at least partly amenable to educational solutions. Those problems are: (1) tendency of industries to locate elsewhere than in areas containing large numbers of poor; (2) shortage of rural residents with managerial expertise; (3) relatively slow growth of high-wage, high-technology industries; and (4) unpreparedness of rural people for small business opportunities.

Various educational means for overcoming the four problems have been examined, including: upgrading the skills of low-income rural workers through improved general and vocational education programs, plus employment training for youth and adults; preparing management personnel through company and school sponsored programs; using Extension training for management leadership development; aiding the growth of technology-dependent industries by emphasizing technological and scientific education; and use of vocational, Extension, and community enterprise programs to teach business skills needed for entrepreneurship. Although some difficulties have been discovered in applying these means, they clearly serve to foster rural industrialization by linking education and economic development in the public/private sectors. Education's continued enrichment would be highly significant for the future of the rural Southeast.

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APPENDIX 4

A Portrait of Rural America: Conditions Affecting Vocational Education Policy

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This paper was written for the National Institute of Education in conjunction with the Vocational Education Study and the Rural Studies. The opinions expressed do not necessarily reflect the position or policy of the National Institute of Education or the Vocational Education Study.

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A PORTRAIT OF RURAL AMERICA: CONDITIONS AFFECTING VOCATIONAL EDUCATION POLICY

Introduction

Few social scientists challenge the notion that rural life is distinctively different from urban life, yet definitive descriptions of "rural" tend to be elusive. Despite mass transportation and increased individual mobility, despite the pervasive influence of the media and the centralization of political and economic power, and despite the homogenizing effects of public education, differences persist. The most vivid descriptions of "rural" come from artists and writers. Paintings by Andrew Wyeth and Grandma Moses of the rural Northeast, the description of the rural South by William Faulkner and the description of the rural Midwest by Sinclair Lewis capture the essence of rural society. But, unfortunately, their words and pictures do not provide the kind of "hard" data needed for formulating policies. Consequently, we must depend upon pictures of rural life that emanate from computer printouts rather than creative prose, and rural becomes a matter of numbers, a statistical concept rather than a way of life, defined by the number of people living in a community and its distance from population centers. Thus, to satisfy the concerns of current policy makers, we will try to use the data that exist and capture the statistical essence of rural life, a tabular view of the people, the land, the poverty, the work, and the schools.

As a general rule, Federal education policies ignore the unique features of rural life. Vocational education policy is no exception. Yet consideration of local conditions has become increasingly important in vocational education policy as the goals of vocational education have been expanded to include social and economic as well as educational objectives. Vocational education today focuses on compensating for differences in ability to support schools, reducing unemployment, and generating economic growth in depressed areas. Each of these - fiscal capacity, unemployment and economic growth--has a different meaning in rural areas than in urban areas and many conventional measures do not adequately describe the needs of both. Thus, if vocational education is expected to aid the rural areas most in need, policies formulated must consider the context of policies--the social, demographic and economic conditions that affect the available resources and the costs, the delivery and the content and, the resulting outcomes of vocational education.

To date there has been no rural advocacy group watching out for the needs of rural people to match the established urban advocacy groups such as the Urban League, the National Urban Coalition, and the Council of Great City Schools. Rural interest groups are as disparate and fragmented as the rural population itself. People in rural communities tend to be more alike than people in large cities, but rural communities across the country tend to be more unlike each other than large cities across the country and therefore the entire rural population does not operate as and cannot be treated as a single polity. Rural populations include migrant farmers in the Southwest, fisherman on the New England coast, factory workers in the South, and wheat farmers in the Midwest.

While the diversity of rural populations should not be ignored, it is counterproductive to rural interests to overemphasize the diversity because of the fact that national policy is built on the commonalities that exist. Despite the wide cultural and economic variations, there are dominant demographic and economic conditions associated with being designated rural, such as scale, isolation, cultural homogeniety within the community, and an agricultural tradition.

Within the dominant conditions there are general regional patterns which, if taken into account, could exercise an effect upon the implementation of policy, such as population density, which is lowest in the Western States; the strength of agriculture, which is greatest in the Midwest; the degree of industrialization, which is highest in the Southern States; and patterns of demographic change. There are, of course, exceptions to any generalizations. Some rural communities in the more urbanized East, for example, take on the characteristics of urban communities, and some medium-sized, but isolated, cities in the Western States, far from other urban areas, take on the characteristics of rural communities. But in order to predict what policies might work and which may not in rural areas, it is essential to understand rural conditions and how they might affect the outcomes of federal vocational education policy.

This monograph will identify statistical patterns and characteristics common to rural areas, both within regions and those that cut across regions. 1/ It includes:

1/ Some of the information in this monograph has been drawn from four descriptive regional papers, prepared for the study of vocational education in rural areas, by Deryl Hobbs, University of Missouri, Columbia, Missouri; Fred Schmidt, University of Vermont, Burlington, Vermont; Frank Adams, Gatesville, North Carolina; and Kathy Baker-Smith, Durham, North Carolina.

- the school district: the characteristics of rural school districts that define and delimit their current delivery systems and their capacity for providing education;
- the people: the demographic characteristics that describe the nature of the population to be served and the ability of rural communities to provide services;
- the need: the descriptions of rural poverty and deprivation that affect the need for services and the choice of criteria by which services are targeted;
- the land: the geographic features that influence the delivery of services; and
- the jobs: the labor market characteristics that affect the programs to be offered the curriculum and the targeting of funds.

The Rural School Districts

Perceptions of rural education are often formed by memories of the past. Rural education is identified with the one-room school much as the rural home is identified with the farm. Yet it is even less representative of rural education than the farm is the rural home. Fewer than 1,100 one-room schools remain today, more as relics of the past than as models still useful under the right conditions.

Whether rural schools are one-room, three-room or consolidated, they are generally smaller than their urban counterparts. Thus, resources are constrained by diseconomies of scale. Small schools are unable to offer either the wide range of educational opportunities available to urban youth or the "extras" of urban schools--the swimming pools, well-equipped auditoriums or sophisticated physics labs. Moreover, programs requiring a large investment such as vocational education are even more restricted than the basic programs by scale. Consequently, most rural students have access to far fewer occupational programs than urban students. In fact, many rural students have only vocational agriculture or office occupations from which to choose. In order to have more extensive programs, rural districts are confronted with the dilemma of either relinquishing control to extensive consolidation of districts or settling for fewer conventional resources.

Differences between urban and rural eudcation are confirmed by existing data. Compared to urban (or metro) districts:

- rural parents are more satisfied with their schools;
- rural schools and rural districts are smaller;
- rural school districts spend less per pupil and have fewer supplemental resources available; and
- rural students perform more poorly on standardized tests.

Smaller quantities do not necessarily reduce quality and rural people in fact claim to be quite satisfied with their schools. According to a recent Department of Housing and Urban Development survey of more than 1,000 small cities, "small cities are proud of their public schools and consider them a major asset." (Developmental Needs of Small Cities, 1979) Only 7 percent of the respondents named schools as a problem. Despite State Education Agencies' (SEAs) dissatisfaction with many rural schools, 20 percent of the small cities rated their facilities excellent and half rated them adequate. According to case studies reviewed, rural residents are also more satisfied with more limited and less specialized vocational curricula than are State and Federal administrators.

. Rural schools and rural local education agencies (LEAs) often are smaller than urban schools and urban districts due to lower population density, however, size is also determined both by State policies and by local choice. Therefore, there are large regional and State variations in school district organization and school administrative policy. Size, of course, has implications for the number of programs and courses that can be supported in an area (Rosenfeld, 1977). It also is a major determinant of qualification for federal programs and inclusion in federal data gathering efforts. Many federal programs are targeted at population centers so that they may reach the maximum number of recipients. Consequently, many rural schools, districts and counties are too small to be funded. Schools and districts that do not qualify are also excluded in data collections and subsequent analyses.

In 1977, 1.2 percent of the nation's school districts had over 25,000 students, who comprised 28 percent of the public school enrollment in the country. In contrast, 26.7 percent of the school districts enrolled fewer than 300 students, who comprised only 1.2 percent of the public school enrollment in the country (Schneider 1980).

Some regional patterns of district organization are discernible (Sher and Rosenfeld, 1977). Southern States are organized around county units and thus contain relatively large districts (e.g. Alabama, 5965/district; Georgia, 5686/ district; South Carolina, 6956/district). Northeastern States tend to follow New England-type town boundaries and consequently are much smaller (e.g. Vermont, 370/district; Maine, 854/district). Midwestern States generally follow township lines and tend to be smaller in nonmetropolitan areas (e.g., Nebraska, 271/district, South

Dakota, 747/district). Western States are mixed--the Southwestern States generally follow county boundaries and contain large districts (e.g., New Mexico, average of 8282), while the Northwestern States are more decentralized with smaller districts (e.g., Montana, 312/district, Wyoming, 1228/district). Even these State averages, however, can be misleading. The average size of nonmetro districts in Nebraska for instance, is 121; the average size of nonmetro districts in Texas is 864. The average district enrollment in the nation in fiscal 1972 for metropolitan areas was 6,360; for nonmetro areas was 1,323.

Rural school districts may consolidate for special purposes in situations where general consolidation is rejected. One such purpose is vocational education. Area vocational education centers serving high school students from multiple districts are common in many States, particularly in the South. Other independent service units, such as the BOCES in New York or the regional education agencies in Texas, provide specialized services to rural districts that individual districts cannot afford.

Dwelling on district size and district organization obsures the character of rural schools themselves. A large LEA may include one-room schools as well as consolidated high schools, yet the statistics typically are presented aggregated at the district level, confounding intradistrict differences. Therefore, school districts can be large in terms of enrollment, but include many small schools and thus still be rural. In the past, urban/rural analyses have been made only with district or county enrollment data as an index for ruralness.

Rural school districts, on the average, spend less per pupil than urban school districts, which, on the surface, would seem to indicate pervasive inequities. Dollars, however, are simply a proxy for resources and resources less easily analyzed. On the one hand, rural LEAs have increased per unit costs due to diseconomies of scale. On the other hand, instructional costs, which comprise the bulk of school expenditures, are lower in rural areas because salaries are lower. For policy analysis, expenditures must not be examined unconditionally but in light of what they purchase.

In 1976-77, of the 46 States that reported expenditures per pupil by central city, suburbs and nonmetro classification, 35 reported nonmetro expenditures below the State average, as shown in Table 1. Almost all of the States that did not report higher nonmetro per pupil expenditures were Western States with large, sparsely populated rural areas that resulted in diseconomies of scale (e.g., Nevada, Utah, New Mexico, Arizona, Texas, Oklahoma). The States with the lowest expenditures in nonmetro areas compared to metro areas were States with large, high-cost urban centers, such as Michigan, New York, Pennsylvania and Illinois, and States with very poor rural counties, such as Mississippi and Arkansas.

The expenditure gap between the metro and nonmetro districts has apparently narrowed in recent years as State and federal aid to schools has increased. In 1972-73, the nonmetro districts were spending about 20 percent less than the central city districts and about 15 percent less than the suburban districts. The difference was mainly in instructional expenditures and services. Administration expenditures per pupil were as high or higher in nonmetro districts and transportation was significantly higher. In the Western States, nonmetro transportation expenditures per pupil were four times greater than the metro expenditures and for the nation, nonmetro expenditures per pupil for transportation were about double the expenditures in metro districts (Hughes, 1974).

TABLE 1

CURRENT EDUCATION EXPENDITURE PER PUPIL BY METROPOLITAN STATUS OF SCHOOL SYSTEM, BY STATE: 1976-77

(INCLUDES EXPENDITURES ONLY FOR PUPILS IN SCHOOL DISTRICTS WITH GRADES 1-12)

STATE OR OTHER AREA	AVERAGE (MEAN) EXPENDITURE PER PUPIL BY METROPOLITAN STATUS			
	ALL SCHOOL SYSTEMS	CENTRAL CITY SYSTEMS IN SMSA'S	SYSTEMS IN SMSA'S OUT-SIDE CENTRAL CITIES	SYSTEMS OUTSIDE SMSA'S
ALABAMA............	$ 757	$ 826	$ 750	$ 723
ALASKA.............	2496	0	0	2496
ARIZONA............	1214	1216	1192	1234
ARKANSAS...........	812	974	782	787
CALIFORNIA.........	1522	1583	1488	1368
COLORADO...........	1439	1612	1405	1354
CONNECTICUT........	1444	1519	1448	1291
DELAWARE...........	1361	2098	1385	1096
DIST OF COLUMBIA...	1914	1914	0	0
FLORIDA............	1256	1180	1351	1171
GEORGIA............	952	1187	990	843
HAWAII.............	1559	1559	0	0
IDAHO..............	942	1074	774	934
ILLINOIS...........	1364	1533	1273	1150
INDIANA............	1049	1197	967	981
IOWA...............	1377	1412	1351	1370
KANSAS.............	1229	1307	1189	1227
KENTUCKY...........	849	1130	813	755
LOUISIANA..........	946	1031	874	914
MAINE..............	1036	1091	1169	1011
MARYLAND...........	1544	1460	1623	1347
MASSACHUSETTS......	1656	1913	1607	1371
MICHIGAN...........	1352	1520	1384	1151
MINNESOTA..........	1363	1763	1335	1255
MISSISSIPPI........	811	1031	744	795
MISSOURI...........	1100	1279	1143	946
MONTANA............	N.A.	N.A.	N.A.	N.A.
NEBRASKA...........	1356	1373	1148	1397
NEVADA.............	1216	1193	1195	1308
NEW HAMPSHIRE......	1049	1081	996	1051

NEW JERSEY..........	$1609	$1545	$1641	$1508
NEW MEXICO..........	1186	1128	0	1212
NEW YORK............	2210	2408	2195	1817
NORTH CAROLINA......	1003	1135	971	963
NORTH DAKOTA........	1207	1422	1167	1192
OHIO................	1199	1447	1176	996
OKLAHOMA............	936	961	875	949
OREGON..............	1555	1714	1518	1482
PENNSYLVANIA........	1376	1691	1345	1161
RHODE ISLAND........	1444	1632	1339	1454
SOUTH CAROLINA......	845	1092	836	829
SOUTH DAKOTA........	1058	1087	960	1058
TENNESSEE...........	881	1129	876	750
TEXAS...............	1046	1064	989	1083
UTAH................	1052	1151	1009	1100
VERMONT.............	1316	0	0	1316
VIRGINIA............	1122	1189	1260	951
WASHINGTON..........	1363	1656	1300	1297
WEST VIRGINIA.......	1434	1162	1120	998
WISCONSIN...........	1449	1633	1454	1337

SOURCE: United States Department of Education, National Center for Education Statistics, special tabulations from merged school district file.

Although rural per pupil expenditures still lag urban expenditures, rural school districts are not short-changed by federal programs--at least not on a purely quantitative basis. A recent Rand Corporation study of two federal programs in six States indicates that, on a per pupil basis, no urban bias exists (Bass and Berman, 1979). An analysis of all federal education programs for fiscal year 1978 shows that for elementary, secondary and adult programs, nonmetro counties received more per capita than metro counties. Outlays for employment training and vocational education, however, were significantly higher in metro counties than in nonmetro counties--by more than 5-to-1 in the Southern States (See Table 2).

TABLE 2

PER CAPITA OUTLAYS BY
REGION FOR FY78

	Metro Counties	Nonmetro Counties
Employment training and vocational education		
U.S.	44.8	14.8
Northeast	40.4	25.6
North-central	38.2	11.0
South	46.4	8.9
West	46.1	33.3
Elementary, secondary and adult education		
U.S.	18.4	22.5
Northeast	17.3	14.3
North-central	14.0	14.8
South	22.1	26.4
West	20.3	34.5

Source: Hendler and Reid, September, 1980

With less money to spend, it is likely that nonmetro districts provide fewer special services. Table 3 shows the relative difference in proportion of schools with two such services, guidance counselors and special education programs. Nationally, the proportion of city districts with special education is twice as great as rural districts. Further, urban areas offered more preschool education. In 1976, 35 percent more 3- to 5-year old children in metro districts attended school than in metro districts (Sher and Rosenfeld, 1977).

Having described some of the disparities in dollars and in services, we must consider the results, in evidence from the National Assessment of Education Project in the early 1970s, which indicated that rural school districts produce the lowest standardized test scores (Table 4). Only in math did the very rural districts do better than city districts. Although it cannot be inferred that fewer resources lead to lower attainment, it is evident that, when the data were obtained, the most rural schools probably were not providing the same quality of education that the more populated districts were.

The differences between urban and rural school districts, of course, are the consequences of contrasts between urban and rural conditions. Small rural district and school size are due in part to the geography and low population density. Satisfaction with schools and the curricula chosen are due in part to the nature of rural society and rural economies. The lack of resources is due in part to the depressed economic conditions of many rural communities. Poorer test scores is due in part to rural deprivation. Vocational education, which demands high costs and also more flexibility to adapt to the changing labor market, is affected even more acutely by rural conditions. The following sections will describe conditions associated with rural life that may affect vocational education programs.

TABLE 3

SUPPORT SERVICES FOR EDUCATION, 1971

	PERCENT OF DISTRICTS WITH GUIDANCE COUNSELORS			PERCENT OF DISTRICTS WITH SPECIAL EDUCATION		
	Center City	Suburban	Rural	Center City	Suburban	Rural
Northeast	100.0	78.9	56.3	94.8	76.4	47.4
Midwest	100.0	78.7	51.3	98.8	75.9	49.3
South	100.0	85.9	85.7	87.0	71.2	61.8
West	81.3	39.8	29.0	70.0	30.9	30.1
U.S.	93.8	67.2	49.8	86.3	62.2	44.9

Source: Fratoe, 1978

TABLE 4

NATIONAL ASSESSMENT OF EDUCATIONAL PROJECT SCORES FOR 13 YEAR OLDS - DIFFERENCE FROM NATIONAL MEDIAN

	Reading 1971	Writing 1970	Math 1973	Science 1970
Big City	1.4	-2.9	-3.9	-2.7
Suburbs	2.1	2.4	2.4	2.6
Medium City	0.1	2.1	0.8	0.8
Small Places	-0.6	-0.6	-0.5	0.9
Very Rural	-4.4	-4.6	-3.6	-6.3

Source: Fratoe, 1978.

The People: The Demography of Rural America

The term "rural" may suggest a mental image of a specific situation: a Yankee farmer in a New England Picture-postcard town, a Kansas farmer in a visor cap working the fields, or an Appalachian woman behind the counter of a general store in Kentucky. Most city dwellers perceive rural folk as different, simply because of the size of the community in which they live. Rural people are often depicted as elderly, self-reliant, slow-paced, possessing little formal education but considerable traditional wisdom, and with strong roots in the community. Ruralness represents an old-fashioned life style based on stability, informality and close relationships, a life which a growing number of people seek intellectually, if not actively. Obviously, these images are stereotypes. Nevertheless there are distinctive features of the rural populace and there is some truth in the images. Compared to urban (or metropolitan) communities, residents af rural communities:

- o are older;
- o have fewer years of formal education;
- o include a decreasing number of farmers; and
- o have lower taxes, but receive fewer public services.

The first question inevitably raised in any discussion of urban-rural demographic differences is: who is rural? According to the U.S. Census, rural means residence on a farm, open countryside or areas of fewer than 2,500 residents. An expanded definition sometimes used is residence on a farm, open countryside, or in a nonmetropolitan area of less than 10,000. An alternate term frequently used because it simplifies the classification for data collection is nonmetropolitan. This is residence outside of a Standard Metropolitan Statistical Area (SMSA), a term for areas that include a city, or city and contiguous communities that utilize the central city for social and economic purposes, with at least 50,000 inhabitants. These metropolitan areas (SMSAs) are often separated into central city and suburbs for analytical purposes. In 1970, there were 53.9 million rural people (26.5 percent of the U.S.), 63.8 million nonmetropolitan people (31.4 percent of the U.S.), and 65.1 million expanded rural (32.0 percent of the U.S.).

Most available data prior to the 1980 census have been presented only according to metro or nonmetro classification. This monograph will use both metro-nonmetro and urban-rural distinctions where they exist and, further, will distinguish among nonmetro, central city, and suburban where the data permit.

Exact and comprehensive data are unnecessary for policy purposes if data are properly identified and the labels are understood. The descriptions that are important for policies will be evident whether the rural population is truly 26.5 percent of the nation, as reported for 1977, or 27.1 percent or 26.3 percent. The rural population is, for policy purposes, about one quarter of the nation. The nonmetropolitan population, which excludes some rural communities that are located within metropolitan areas, was about 3 out of 10 for the same year. These numbers have decreased at a fairly uniform rate until about 1970, (See Table 5) when the decline slowed and even was reversed in many regions. Whether rural or nonmetropolitan data are used, enough people are involved to warrant policy consideration.

One of the most widely publicized findings in demographic statistics in recent years has been the shift in population (Beale, 1976; Morrison, 1979; Ross, 1979). For years, rural areas had been losing population to the cities.

TABLE 5

RURAL POPULATION

Year	Total U.S. Population (millions)	Rural Population (millions)	Rural Population Percent of Total	Farm Population Percent of Total
1880	50,156	36,971	73.7	43.8
1890	62,947	42,254	67.1	42.3
1900	75,995	47,622	62.6	41.9
1910	91,972	49,349	53.7	34.9
1920	105,711	51,406	48.6	30.1
1930	122,775	53,820	43.8	24.9
1940	131,669	57,246	43.4	23.2
1950	150,697	61,770	41.0	15.3
1960	179,323	53,765	30.0	8.7
1970	203,212	53,887	26.5	4.8
1979	219,611	--	--	3.4

Source: Bureau of the Census

TABLE 6

POPULATION CHANGE 1970-1975

Location	Percent Change
Total U.S.	4.8
Metropolitan	4.0
Nonmetro	6.9
Open Country	9.8
Less than 2500	5.8
2,500 - 9,999	3.3
10,000 - 24,999	3.3
25,000 - 49,999	3.1

Source: U.S. Bureau of Census, Current Population Reports, Series P-25, Nos. 649-698.

Now, over the first half of the 1970s, nonmetro counties have exhibited a higher rate of growth than metro counties and migration patterns have reversed--labeled by demographers as the "rural turnaround." For the first time in this century, nonmetro counties gained population at a greater rate than metro counties, shown in Table 6, and net migration was into rural areas. Between 1970 and 1975, metro counties gained 4.0 percent, nonmetro counties gained 6.9 percent and the completely rural communities gained 9.7 percent (Beale, 1976). Among the regions of the country, the West and South gained more than the East and Midwest, although in all regions the completely rural counties exhibited the greatest growth. Figure 1 shows the shifts in migrational pattern between 1970 and 1976 by region.

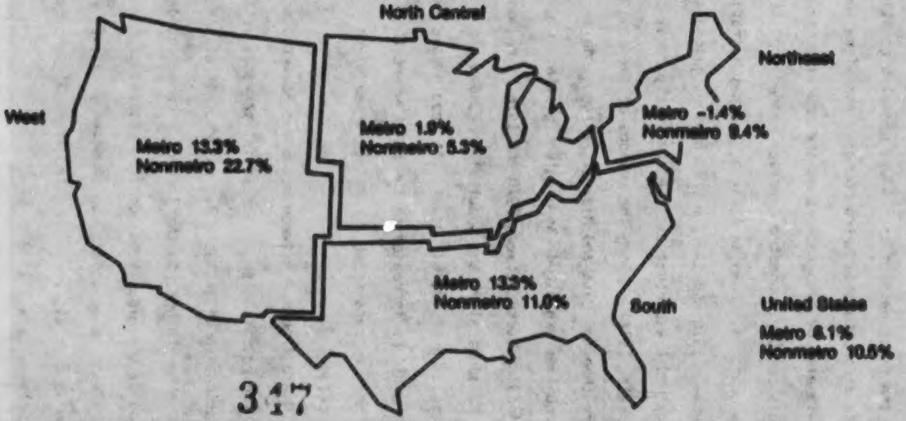
Paradoxically, the population changes could create a statistical misrepresentation of the situation. As people move into rural areas, the population could be increased to the point where the town is considered as "urban." What appears to be a rural-to-urban migration may be simply a reclassification.

One difference between metro and nonmetro areas that influences the needs for education and other social services is the age distribution of the population, shown in Table 7. As a result of the outmigration of youth due, among other things, to the lack of economic opportunities, and to the inmigration of the elderly to nonmetro retirement communities, rural communities tend to be older. In nonmetro areas, 36 percent of the population is over 44, while in metro areas 31 percent of the population is over 44 (Goland, et al, 1978).

One of the most striking differences between metro and nonmetro residents is in the average levels of formal education, particularly among blacks, shown in Table 8. Only 47 percent of white males on farms and

FIGURE 1

Change in Regional Population Growth, 1970-78


North Central
Northeast
West
Metro 13.3%
Nonmetro 22.7%
Metro 1.9%
Nonmetro 5.3%
Metro -1.4%
Nonmetro 9.4%
Metro 13.3%
Nonmetro 11.0%
South
United States
Metro 8.1%
Nonmetro 10.6%

West and U.S. totals include Alaska and Hawaii.

TABLE 7

AGE DISTRIBUTIONS IN SMALL CITIES, 1970

	Nonmetro Small Cities	Metro Small Cities*	Large Cities
Under 5 Years Old	7.9%	8.4%	8.3%
5 to 18	26.6	28.2	26.6
19 to 24	9.1	8.6	11.3
25 to 44	20.6	23.7	23.3
45 to 64	21.4	20.9	20.5
65 and Over	14.3	10.1	10.0

* Does not include 119 cities under 50,000 population which are central cities of their SMSAs. They are included in the large city category.

Sources: Data Systems and Statistics Division, U.S. Department of Housing and Urban Development, derived from 1970 Census data; "Small City Study Comparisons," U.S. Bureau of the Census, Census Use Research, Statistical Research Division.

TABLE 8

PERCENT COMPLETING HIGH SCHOOL, OF THOSE OVER 25, 1975

	Blacks		Whites	
	Males	Females	Males	Females
Rural-farm	9.4	16.6	46.9	58.8
Rural, Non-farm	25.3	27.0	57.3	58.0
Suburban	50.5	51.5	71.5	70.5
Central city	46.3	47.7	66.2	61.9

Source: Fratoe, 1979

57 percent of white males in nonmetro, nonfarm areas who were over 25 in 1975 completed high school, while 72 percent of suburban and 66 percent of central city white males completed high school. For black males, the comparable percentages who completed high school were 9 percent, farm; 25 percent, nonmetro, nonfarm; 51 percent, suburban; and 46 percent, central city. Even more striking is the fact that nearly 1 of every 4 of nonmetro black males has not had 5 years of school, shown in Figure 2.

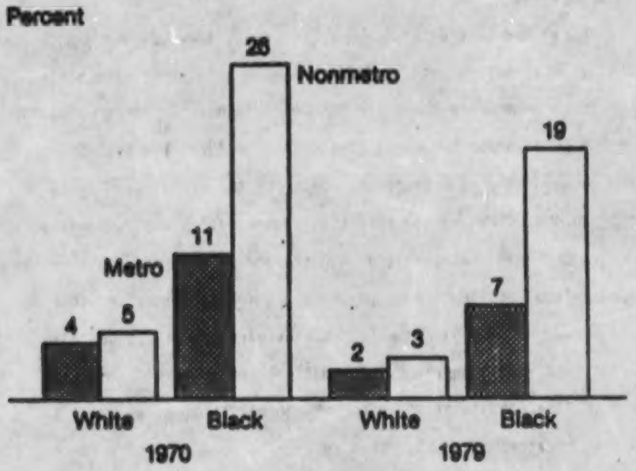
Despite the decline of employment in agriculture, rural residence is often perceived as synonomous with farming. Farm residence, however, also has diminished as rapidly as agricultural productivity has increased. In 1900, 40 percent of the population lived on farms; this dropped to 23 percent in 1940, to 15 percent in 1950, and to about 3 percent in 1979 (see Table 5). About 1 out of every 35 persons or 1 out of 9 rural people lived on farms in April, 1979. Farm residents, as defined in 1978, are people living on a farm with agricultural production of at least $1,000 per year, which excludes those living on non-working farms or those farming only for self-consumption or barter and is thus an undercount.

The farm population in 1979 was 94 percent white, a substantial change from 1920 when half of all blacks lived on farms and made up a much larger share of the total farm population. Only 280,000 blacks resided on farms and only 118,000 Hispanics lived on farms in 1979 (Farm Population of the United States, 1960).

Only about 3 percent of the nation's work force earn their living from farming today and a third of all farmers need off-farm jobs to survive economically. The data, however, fail to include most farm women. Farm women are frequently an unclassified part of the labor force, sharing in the running of the farm and particularly in farm management, but with few of

FIGURE 2

Adults with Less than 5 Years of Schooling



Adults with less than 5 years of schooling are defined as functional illiterates.
Source: Bureau of the Census.

the fringe benefits of paid employment (Hill, 1980). Farm women also are likely to have additional work off the farm in order for the farm family to survive economically.

Community Services

Rural communities have fewer government services and smaller and less costly local governments than cities--even on a per capita basis. Rural property owners are therefore not taxed as heavily for noneducation services as urban property owners (Table 9). In 1976, the tax effort of nonmetro rural areas, as measured by nonschool taxes, was 1.19 mills per dollar of income. The average effort for large cities was 2.58 mills. This is somewhat deceiving because it does not describe the true costs to the individual--rural residents must pay directly for some services that are provided by larger city governments, such as garbage collection, fire protection, and social services. The differences in service and taxes are due more to diseconomics of scale and the inability of rural towns to provide the services centrally, than to lack of need or desire for the services (Developmental Needs of Small Cities, March, 1979). Among the greatest unfulfilled needs of rural communities are, in fact, sewers, streets and water facilities, items typically paid for by municipal taxes.

In some instances, rural communities actually do have lower expenses. Police protection, for example, is less costly outside of cities. One of the attractions of rural life for many is the lower crime rate. In 1975, the rate of violent crime in metro areas was almost four times the rate in rural areas and more than twice the rate in small cities, shown in Table 10. The rate of school vandalism and schoolroom violence is also much lower in rural areas (Violent Schools-Safe Schools, 1978). Although the crime rate

TABLE 9

TAX EFFORT FOR PURPOSES OTHER THAN EDUCATION, 1976

Population Category	Average Tax Effort	
	Nonmetro	Metro
Small Cities	1.61	1.76
Under 2,500	1.19	1.16
2,500-9,999	1.72	1.61
10,000-24,999	1.93	2.02
25,000-49,999	2.15	2.20
Large Cities		
50,000 and over	-	2.58

* 35% or more (one standard deviation) above mean

Tax effort = $\frac{\text{Adjusted (non-school) taxes}}{\text{Population x per capita income}}$

Source: Rural Development Progress, USDA, 1977

TABLE 10

CRIME RATES PER 100,000 INHABITANTS, 1975

	Metro	Small City	Rural
Property	5529	4168	1829
Violent	580	269	167

Source: Rural Development Progress, USDA, 1977.

in nonmetro areas has been increasing, it is still significantly lower than city crime rates.

The Need: The Nature of Rural Deprivation

The case for the neglect of the rural poor has been presented--for example, in the National Advisory Commission on Rural Poverty, 1967, and the Senate Committee Report, 1971. However, because poverty in rural areas has a different face than poverty in cities, the facts bear repeating. The data show that when nonmetro counties are compared to metro counties;

- poverty is more prevalent;
- poverty is greatest among blacks in the rural South;
- rural poor are more likely to be employed;
- poor families are more likely to be intact; and
- health is poorer and health care is less accessible.

Federal programs aimed at poverty inevitably have too few funds to achieve all of their objectives and thus are most effective if their resources are sufficiently concentrated to reach the greatest target population. The dispersed nature of rural poverty, however, hampers the concentration of resources and the provision of social services. It is far easier and more cost-effective to run programs for the poor in cities where a central office can be responsible for reaching thousands. Yet much of the most extreme poverty is in sparsely populated areas.

In 1977, 33 percent of the population lived in nonmetro areas but 40 percent of the poor lived in these areas. Of the 250 poorest counties in the nation in 1975, all were rural. Tarpaper shacks and mobile homes tucked away on back roads and in the woods are out of the line of vision of urban-based policy makers and tend to be overlooked. Yet even the

Pennsylvania farmhouse, which looks so quaint from a car speeding down the interstate, on closer inspection might disclose inadequate plumbing, poor insulation and a leaky roof.

Regional and Racial Variations

Statistics on the rural poor are far from uniform across rural populations. National averages hide regional and racial differences. While poor rural counties exist in many States, extreme poverty occurs disproportionately in the South (See Table 11) and even more disproportionately among blacks. Of the 255 poorest counties in the nation in 1975, 237 were located in Southern States; 212 of the Southern counties had an average per capita income of less than $3500. In that same year, 41 percent of all nonmetro blacks had incomes below poverty and almost all lived in the South. In 1975, 12 percent of nonmetro whites had incomes below poverty and about half of all native Americans had incomes below poverty.

TABLE 11

MEDIAN FAMILY INCOME, 1978

Region	Metro	Nonmetro
United States	9362	7032
Northeast	10449	8515
North Central	10191	7549
South	8235	6076
West	10113	8212

Source: The Rural State in Public Assistance, 1978

Data show that farmers also were disproportionately poor--20 percent had incomes below the poverty level in 1975. In 1977, more than 18 percent of all farmers earned less than $5000, including 17 percent of white farmers and 42 percent of black farmers. Among farmers, 39 percent earned less than $10,000 while only 27 percent of other nonmetro residents earned less than $10,000. Poverty is most extreme among elderly farmers, who are not as able to supplement their farm income with off the farm work.

TABLE 12

POPULATION BELOW POVERTY, 1975

	1000s	Percent Poor
United States	25,877	12.3
Metro	15,348	10.7
Central City	-	15.0
Farm	-	16.4
Nonmetro	10,529	15.9

Source: The Rural State in Public Assistance, 1978

Incomes of rural people are also low outside the South, but tend to be above the poverty line, in part due to the much smaller rural minority population. Vermont, Maine, and Idaho, for instance, have very low per capita incomes but much lower proportions of their populations are below poverty level than even wealthier (on a per capita basis) Southern States. The cost of living tends to be higher in the Northern States however, causing need to be underestimated. Thus, many Northern poor in need fail to qualify for targeted assistance programs. For example, although Vermont is ranked 42nd in per capita income, no county in the State qualifies for direct federal assistance under the proposed Youth Employment Bill passed by the House in the fall of 1980, which would allocate money based on concentration of need- incidence of poverty or numbers of youth below poverty.

The Rural Poor Family

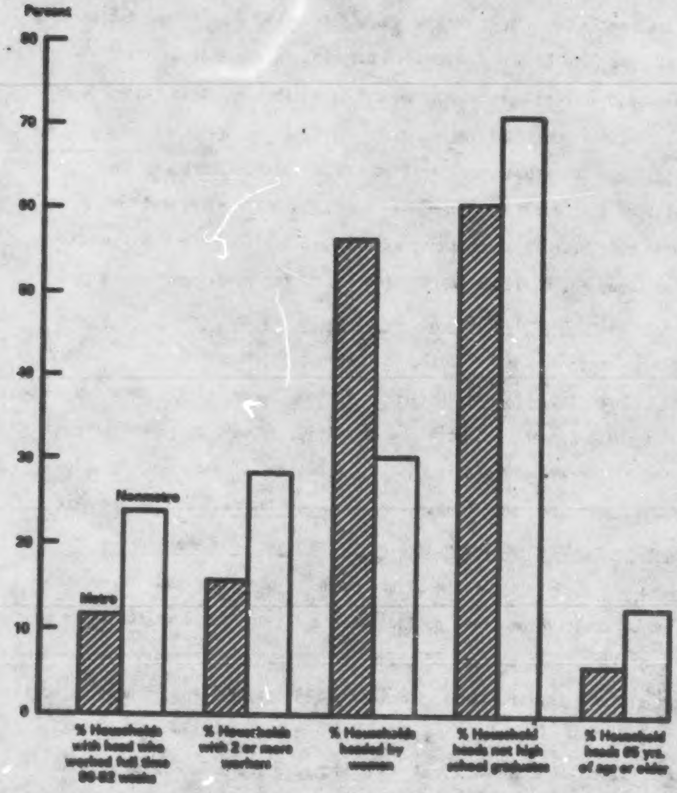
Many of the stereotypical characteristics of poor people do not hold for rural areas. For instance, rural poverty is not as often associated with unemployment. In 1975, 1 out of every 4 poor families living in nonmetro areas had a member who worked full time for the entire year and nearly 30 percent of the households below poverty had two or more wage earners (See Figure 3). Underemployment is as large an issue as unemployment in rural areas, but much less visible and less easily counted.

Rural poor families are more likely to be headed by a male (70 percent) than the urban poor families (33 percent). Therefore rural poverty is not simply a result of broken homes and abandoned wives and children. Since in most States intact families and farm families are ineligible for Aid For Dependent Children (AFDC), the aid to the rural poor is limited. 1 in 4 nonmetro poor families has earnings as its only source of income. The other three fourths has either a combination of earned and "unearned" income (43 percent) or only "unearned" income (30 percent). Unearned income includes child support, alimony, and annuities as well as payments from government programs, veterans benefits, AFDC, social security, unemployment insurance, and other public assistance. Less than half of the nonmetro poor, however, received any public assistance and only about a quarter received AFDC. Only one-fifth of the nonmetro poor received all or some portion of their income from public assistance; one third of the metro poor received all or some portion of their income from public assistance (National Rural Center, 1978). Of people eligible for food stamps in rural areas, a smaller percentage actually received them than in urban areas. Further, fewer of those in rural areas who received food stamps received any public assistance at all.

In summary, then, a smaller proportion of the rural poor receive government benefits than urban poor. The nonmetro poor are either more self-reliant, and less willing to use public assistance programs or the

Figure 3

COMPARATIVE PROFILE OF POOR HOUSEHOLDS IN METRO AND NONMETRO AREAS, 1975



Source: U.S. Bureau of Census

public assistance programs are failing to reach the rural areas. Thus, new formulas programs that target funds based on numbers receiving assistance from existing programs will underserve rural areas.

Rural Health and Health Care Services

Rural areas have fewer health care services than urban areas. Hospitals are few and far between, the number of general practitioners is declining and those remaining are overburdened. Specialized clinics just do not exist in sparsely populated areas. Even in the clean country air and with slower pace, the health of rural residents is not better than city dwellers. A study of the health status by county, conducted by the United States Department of Agriculture (USDA), and based on census data, reported that the index of health for metro areas was 8 percent higher than that of nonmetro areas. The index was composed of infant mortality rates, for which nonmetro was 11 percent higher than metro; total mortality rates, for which nonmetro was 5 percent higher than metro; and influenza and pneumonia mortality rates, for which nonmetro was 15 percent higher than metro (Ross, Bluestone and Hines, 1979).

A Department of Health, Education and Welfare (HEW) study of health care reported that there were twice as many doctors per 10,000 residents (19.3) in metro areas than in nonmetro areas (8.0), shown in Table 13. The discrepancies are not quite as great for dentists (6.0 in metro areas and 3.7 in nonmetro areas) but still significant. There are even fewer doctors in the nonmetro areas of the Southern and North central States (just over 7 per 10,000) and there were fewer than 3 dentists per 10,000 in the nonmetro South. (Health, 1978). The trend, however, appears to be reversing and the number of general practitioners, and even specialists is now increasing more rapidly in rural areas than in cities.

TABLE 13

INDICES OF HEALTH CARE, 1975

	Physicians/100,000			Dentists/100,000		
	Metro	Non-Metro	Nonmetro nonadjacent less urbanized	Metro	Non-Metro	Nonmetro nonadjacent less urbanized
United States	19.3	8.0	7.2	6.0	3.7	3.6
Northeast	22.5	10.9	9.6	7.2	4.8	4.5
North Central	17.3	7.5	6.9	5.6	4.2	4.4
South	17.6	7.2	6.6	4.8	2.8	2.6
West	20.2	9.5	8.4	6.9	4.8	4.8

Source: Health, United States, 1978

The Rural Landscape

What makes rural America truly distinctive is the land and how the people relate to it. The geography of rural America is as diverse as the inhabitants, affecting the delivery and costs of educational and social services. To design effective vocational education educators must know the topography of the areas to be served and what delivery systems best fit. For example, New Mexico cities can be separated by many miles geographically isolating population settlements and making area centers inaccessible to many. Vermont, which is more densely populated, retains a strong New England tradition of local autonomy creating a social rather than geographic isolation among population settlements. Attempts to establish programs in New England that do not fully involve each community will fail (Gjelton, 1979).

Understanding the rural environment is as important as understanding the people who live there. Compared to communities within metropolitan counties,

- rural geographic conditions are more varied;
- rural communities are less accessible; and
- rural farm land is declining and ownership is becoming more concentrated.

Population residing in rural areas and population density describe very different geographic characteristics and attempts to use them interchangeably can lead to confusion, particularly when statistics are aggregated to the State level. Nevada, for instance, turns out to be 47th in the proportion of its rural population--less than 20 percent are rural. Yet its population density is only 4 per square mile, the third most sparsely populated State. California, the least "rural" State based on population figures still has the 10th largest rural population, and is second in agricultural production. In general, the Western States are more sparsely populated (22 per square mile) but also more urban (83 percent), as shown in Table 14. The Southern States are the most rural (35 percent), but much more densely populated (78 per square mile). An analysis of only nonmetro counties would reveal a very low population density in the West and thus a quite hard-to-serve population.

TABLE 14

POPULATION DENSITY

	Population (1000s) 1978	Area, Sq. Mi. (1000s)	Population Density 1978	Percent 1970
United States	213,060	3,540	60	26.5
Northeast	49,457	163	303	19.6
Midwest	57,640	752	77	28.5
South	68,051	874	78	35.4
West	37,912	1.751	22	17.1

Source: Bureau of the Census, 1978

Ample space in which to live has its drawbacks as well as its benefits. Lack of public transportation--taken for granted in most large cities--bars many rural people from participating in education, job training programs, social services, and even the job market. Rural America is highly dependent on the automobile and suffers acutely from such things as energy shortages and poor road conditions The rising cost of both cars and fuel causes more hardships for rural inhabitants than for city dwellers. In 1974, before the energy crisis really hit, 15 percent of all nonmetro households did not have access to an automobile (Rural Development Progress, 1977). The poor, the young and the elderly are particularly handicapped by lack of transportation.

There is almost no public transportation to supplement private means. In 1980 there were only about 1,300 public buses serving non-urbanized areas. The more sparsely settled States had virtually no transportation in the more rural areas. Utah had only nine local public buses operating in rural areas, Texas had two, New Mexico had none, Idaho had three, and South Dakota had none (United States Department of Transportation, 1980). Limited intercity transportation also restricts mobility in rural area. With the slow demise of rail passenger service to rural areas, the buses are the only remaining public links between the country and the city.

Although farms and ranches are getting larger, the total amount of land being farmed or ranched is giving way to urban sprawl. Farm and ranch land is declining (See Table 15).

TABLE 15

FARMLAND

	Farms Average	% of Land Farmed	% of Farmers working More than 100 days off farm
United States	440	44.9	35.2
East	183	22.4	36.6
Midwest	357	75.4	29.7
South	329	54.7	40.9
West	1360	29.1	35.9

Source: Bureau of the Census, County and City Data Book, 1977

Farm land decreased by almost 6 million acres per year between 1960 to 1979 (Coughlin, 1980). Actual or proposed economic development often upsets the stability of land prices, inflating farm lands above their use value (Huffman, 1977). Between 1970 and 1980, farm land increased by over 22.5 percent, almost 2.5 times the rate of inflation. In Iowa farm land jumped 33.5 percent for the same period. Spiraling land prices entice marginal farmers to subdivide and sell sections to new residents; in other areas, as property taxes rise, land is simply diverted to more profitable purposes.

The land remaining is becoming concentrated among fewer farmers. New York reported 1,000 fewer farms in 1980 than in 1979. In 1950, the average size of a farm was 213 acres; in 1965 the average holding was 339 acres; in 1979 it was 443 acres (Coughlin, 1980). Today the 1 percent largest of farm and ranch owners possess 29 percent of all the land while the 50 percent smallest own only about 5 percent of all the land, as shown in Table 16. The proportion of all land used for farming or ranching, 60 percent in 1945 was down to 45 percent by 1978.

TABLE 16

DISTRIBUTION OF LAND OWNERSHIP, 1979

Size of Holding, Acres	Owners, 1000s	Percent of All Landowners	Percent of Total Acres
Less than 50	3,577	57	6.2
50 - 199	1,769	28	23.0
200 - 499	621	10	23.0
500 - 1499	204	4	20.2
1500 and over	55	1	27.6
Totals	6,226	100.0	100.0

Source: Who Owns the Land, Economic Statistics and Cooperative Services 70, September, 1979.

Since property wealth is the basis for local taxes and is frequently used as a proxy for wealth in distributional formulas, the trends in rural property are an important element of education policy.

Rural Jobs and Rural Work: Distinctions and Definitions

Knowledge of the characteristics of rural areas and rural people is important to the social objectives of federal policies and, similarly, knowledge of the character of rural economics and labor markets is important to the economic objectives of federal policies. Vocational education must correspond to local labor market needs. Yet the unique features of rural economics are often obscured by the use of State aggregated information and by conventional ideas about economic growth that have developed from urban/industrial expansion. Rural economics do not always fit these patterns. When rural areas are compared to urban areas:

- nonagricultural business and industry is increasing much more rapidly;
- the largest number of job opportunities tend to be limited to one or two industries;

Industrialization and Domination

Industry is not new to rural America. The East is dotted with one-industry towns--coal mining towns in Appalachia and mill towns in the South and in New England. The history of rural industrialization has been one of domination and paternalism. The company dominated the economics and politics of the town, and as the largest employer, kept the workforce as dependent upon it as possible. Unionization in rural areas was rare. Since the company was the "only game in town," and often owned even the stores and supporting services, control was complete.

Today, with renewed emphasiss on rural industrialization, it is safe to assume that the number of one- and two-industry towns is growing. State economic development strategies, particularly in the South, have been directed at moving labor-intensive industries to nonindustrialized rural areas to take advantage of surplus labor and lack of wage competition. The conditions in these new industrial towns, however, is no longer the same. The single company of today is less likely to be a family-owned business or independent corporation and more likely to be a subsidiary of a much larger corporate entity. The economic domination persists but industry has improved the treatment of workers. But, because it usually brings in many new people, it does not have the some political domination or the same long-term commitment to the community. Therefore, when locations with lower labor costs are discovered, new industry is as likely to leave as quickly as it came.

The conventional notion of low-skill industrialization is that it is only an early stage of industrial growth and technological change, and that as the work force becomes better educated and more disciplined, higher paying industries will join or replace the low-skill industry and low paid workers will be upgraded. Studies of sites where this has happened, however, indicate that plans go astray and in fact the higher skill jobs go to workers imported from outside the community and much of the income generated leaves the community. Thus, the benefits have been less than anticipated.

One of the reasons why the South has been able to attract business to rural areas is that many of the former deterrents to economic growth such as poor roads, lack of waste disposal and water capacity, and poor schools, have been taken care of at government expense, through the programs of the Appalachian Regional Commission, the Economic Development Administration, Farmers' Home Administration, and the Tennessee Valley Authority. Therefore, rural communities that were once rejected cut-of-hand for industrial development are now considered prime sites by corporate planners. Service industries, too, are moving to rural areas at an even greater rate than manufacturing. Service industries, however, tend to be less labor intensive and are more apt to hire more women and youths not previously in the labor market for the low paying clerical jobs.

Southern States have been more aggressive than other States in recruiting business to relocate in rural areas. Half of the increase in nonmetro manufacturing jobs between 1962 and 1978 occurred in the South--much of it before 1970. Southern states economic development agencies openly have wooed Northern industrialists to convince them to move South, to a "warmer" business climate with lower wages, surplus labor, lower taxes, and, right-to-work laws. A study of migration of firms out of New England between 1969 and 1974 showed that a third went to the Southeastern states* (Jusenius and Ledebor, 1977).

The industries participating most heavily in the revitalization of the rural south have been the textiles, apparel, food, and chemical industries--all but the last being labor-intensive, low-skill requirement industries. More recently, the attractive business climate of the South has attracted service industries for similar reasons. Service employment in the South increased by 33 percent between 1970 and 1976. The beneficiaries of the growth, however, have been distributed selectively, concentrated among white males. Although Blacks comprise 40 percent of the work force in the South, they have gained only 16 percent of the new jobs (Bruno and Wright, 1980). From 1950 to 1970 in Alabama, when industrial employment increased 20 percent, employment in the State's black belt dropped 30 percent (Marable, 1979).

The North central States have been less aggressive, but still persistent, in trying to attract industry. Unable to offer the same low-wage, non-unionized work force of the South (most of the Midwest has a higher wage rate and higher union membership rate than the nation as a whole), and unable to generate the same level of Federal support, the North-central States attempt to "sell" their existing community services--transportation networks, roads, water and sewage systems, and, especially, an educated, motivated, and skilled work force (Bruno and Wright, 1979).

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* It is difficult to discern the degree to which rural jobs were created at the expense of urban jobs, or Southern jobs at the expense of Northern jobs. Studies of plant relocations would indicate that the numbers are small (Miller, 1979) and that most plants that relocate remain very near their old site. Yet critics of business flight point out that it is not easy to identify all relocations. They sometimes occur over time, by slowly phasing out a plant in one area or simply not replacing worn out equipment, and investing in a new plant somewhere else, with a slightly different product or process (Bluestone and Harrison, 1979).

Between 1962 and 1978, nonmetro manufacturing jobs increased in the North-central States by 48 percent--an increase of 564,000 new jobs. Metro manufacturing jobs increased by only 400,000 during the same period. (Haven and Holling, 1979) A large number of the new nonmetro businesses are related to the indigenous resources of the region, agriculture, and forestry. The largest growth has been in related industries such as feeds, paper, farm machinery and trucks, but it has also included household appliances, plastics, and instruments.

Rural towns in the Northeast, with strong traditions of self-reliance, have been the least susceptible to domination by single industries. Although there has been some industrialization in the rural Northeast, the mass production, labor-intensive industries have not chosen the Northeastern States as frequently for new plant sites. Wages in the Northeast are relatively high, the climate is less desirable, taxes are high, and zoning restrictions are more common. More important, the Northern States have been more particular about the businesses they recruit and are more apt to consider such things as the effects on the environment and the quality of work. General levels of education are higher in the North, but the customized vocational education training programs are not as strongly promoted. Public training tends to be "constrained" by demanding from participating firms a commitment to a minimum number of new jobs, wages above the legal minimum, or union negotiation clauses. The message now being sent to the North by development strategists trying to rebuild Northern economics is clearly to be satisfied with less for workers in order to increase the gross number of jobs (Short and Levin, 1979). Nonmetro jobs in manufacturing in the Northeastern states increased by only 13 percent between 1962 and 1978 (Haren and Holling, 1979).

The rural areas of the Western States are the least populated parts of the nation. Communities are isolated from one another and thus less attractive as industrial sites, despite the strong business climate of the sun belt states in the West. In the West, industrialization is much more apt to occur in or near urban areas and, in particular, near the medium size cities such as Boise, Idaho, which offer a compromise between small town environment and large city benefits. Nonmetro manufacturing jobs increased by only 10 percent between 1962 and 1978 (Haren and Hollings, 1979).

Much of the rural economic growth in the West has been in businesses related to the indigenous resoures of the region and energy-related industries (Baker-Smith, 1980). Some of this new work requires sophisticated technological skills and therefore offers high wages. But other industries that are prolifsrating, especially along the Mexican border, are in non-durable manufacturing (which is growing twice as fast as durable goods manufacturing in the West), which pays low wages, offers little advancement, and is unstable, moving where the costs are lowest.

In contrast to the manufacturing employment, service employment is booming as a result of the increase in tourism and recreation in the West. Jobs in the service industries increased by 48 percent between 1962 and 1978. The service industries, like Southern manufacturing, require large numbers of low-paid, low skill employment, such as hotel and restaurant workers, clerks and commercial cleaners, and thus the quality of work as well as employment is at issue in the West.

The growth of large-scale business and industry in rural locations has improved rural conditions simply by putting more people to work. It has not, according to most studies, helped those most in need, the disadvantaged

TABLE 17

PERCENT CHANGES IN EMPLOYMENT BETWEEN 1970 AND 1976

	Northeast		North Central		South		West	
	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro	Nonmetro	Metro
Mining	16.5	13.5	15.0	- 1.0	26.6	23.4	29.6	0.4
Construction	-9.0	-22.6	9.9	-14.4	23.8	6.5	73.8	-3.5
Manufacturing	-10.0	-18.5	-1.1	-10.8	7.6	-1.5	12.6	-0.1
Transportation, Comm, Utilities	8.5	-10.5	6.3	- 3.9	9.4	8.6	20.7	3.7
Wholesale, Retail Trade	21.5	1.5	19.7	9.5	24.8	21.5	31.1	22.6
Finance	19.9	3.1	22.3	11.8	32.1	28.2	48.7	25.0
Services	18.1	13.2	26.3	23.5	33.6	31.4	48.0	29.5
Government	17.6	11.1	9.5	15.9	20.0	25.5	21.3	21.4

Source: Coltrane, 1978

and minorities, or has it significantly improved income disparities. Industrial jobs paying below the national average have increased much more (128 percent) than jobs paying above the national average (28 percent) since 1950. Thus, while industrial growth has improved the employment picture in rural areas, it has not always improved the income picture or the quality of work.

Independence and Self-employment

Despite the publicity given rural industrialization, the single, one-shift production job remains less among rural workers than among urban workers. Rural workers are often forced to be more self-reliant, and piece together economic opportunities to make a living. Many rural residents choose to operate farms for their own use or for supplementary income. While the modern city worker is frequently a specialist, the rural worker is a jack-of-all-trades.

The implications of both the lack of job opportunities and more independence are increased growth of self-employment, cottage industries, small businesses, and local producer cooperatives. The opportunities created by new and existing small businesses are underestimated and underexploited in education and training policy. In 1978, there were almost 12 million self-employed people in the nation, including almost 9 million in non-farming occupations. Thus, coincidental with the publicity given "reindustrialization" by the current administration, there is also federal support for small-scale, community-based businesses and even, for the first time in years, for small-scale farming (Bergland, 1980). Which policies predominate locally depends to a great extent on State and local policies and desires.

In 1975, 11.5 percent of the U.S. labor force was self-employed; 6.8 percent had only self-employment income and 4.7 percent had both self-employment income and salary or wage income. In nonmetro areas, however, 17.4 percent were self-employed, 10.9 percent with only self-employment income and 6.5 percent with both (See Table 18). Even discounting farm employment, nearly 10 percent of the nonmetro work force was self-employed.

The variations between metro and nonmetro areas are especially startling when disaggregated by economic sector. High self-employment would be expected in agriculture, where over half are, in fact, self-employed. But one quarter of those in construction, nearly one-third of those in business and repair services and one-fifth of those in personal services in nonmetro areas are self-employed--a rate far higher than their metropolitan counterparts (See Table 21). About 1 in 7 of those in Wholesale and Retail Rrades, Recreation and Finance, Insurance, and Real Estate in nonmetro areas are also selfemployed. In all, 1 in every 4 males living in a nonmetropolitan county is self-employed.

The high rate of self-employment outside of agriculture suggests large number of very small businesses in nonmetro areas (called "micro-business" when they employ only a very few people). In one county in rural Maine, it was recently reported that there were more than 1,000 micro-businesses involving over one-third of the work force (ACCION, 1980). Despite the rural industrial renaissance, rural economies remain largely dependent on small businesses. In 1979 the House Committee on Small Business warned:

> The subcommittee also recognizes the fact that any attempts to enhance the development of rural areas requires a strong and viable small business community for it is this sector

TABLE 18

SOURCE OF INCOME, PERCENTAGE OF THE LABOR FORCE 1975

Sector	Total Self-employed	Self-employment only		Self-employment plus salary or wage income	
		Nonfarm	Farm	Nonfarm	Farm
US-Nonmetro	17.4	6.3	5.1	3.5	3.4
US-Metro	8.9	4.7	0.6	3.1	0.6
NE-Nonmetro	11.2	5.3	1.7	3.4	1.0
NE-Metro	7.7	4.6	0.3	2.5	0.3
MW-Nonmetro	21.5	6.3	8.3	3.6	4.6
MW-Metro	8.2	3.9	0.9	2.7	0.8
South-Nonmetro	16.7	6.4	4.5	3.1	3.6
South-Metro	9.5	5.0	0.7	3.3	0.8
West-Nonmetro	17.5	7.0	3.7	4.6	2.8
West-Metro	18.9	5.5	0.6	4.3	0.6

Source: Nilsen, 1980

TABLE 19

PERCENT SELF-EMPLOYMENT, BY SECTOR
1975

	Nonmetro	Metro
Total	17.4	8.9
Total-Male	23.4	11.8
Total-Female	8.9	5.0
Sectors		
Agriculture, Forestry	53.9	35.5
Mining	9.5	6.2
Construction	24.0	16.2
Durable Mfg	8.2	4.0
Non-durable Mfg	5.6	3.9
Transportation Communications	12.4	6.1
Wholesale Trade	14.2	8.5
Retail Trade	14.3	8.1
Finance, Insurance & Real Estate	13.9	8.1
Business & Repairs	30.7	16.7
Personal Services	21.7	14.1
Recreation, Entertainment	13.7	16.8
Professional Services	8.7	8.7
Public Administration	9.5	3.2

Source: Survey of Income and Education, Bureau of the Census, 1976 which constitutes the foundation of our non-urban areas. (House Committee Report, August, 1979.)

Nationally, most new jobs created are in small businesses. More than 98 percent of the existing commercial establishments are small businesses. Between 1969 and 1976, 77 percent of the employment growth came from firms with fewer than 50 employes. In contrast, the Fortune "100" contributed less than 2 percent of the new jobs, yet they control almost half the corporate assets.

A study of 82 micro-businesses in Maine revealed some interesting features of small business (Teal, 1980). Small firms are usually not very labor intensive, have little working capital and a small investment in equipment. The average employment in the survey was 4.4 employees, half of whom were unpaid family members. The smallest businesses surveyed did not pay lower than average wages, as other data suggest (Gordon, 1980). The lower wages were actually paid by the largest firms in the sample.

There are two implications for education policy of training for work in small businesses. First, the job requirements of small businesses are, by necessity, more diverse than those of large businesses. Small firms, like small school districts, do not have the luxury of buying specialists. To compensate, a broader range of skills is demanded of the workers. Moreover, the social relations are generally more informal and the "production line" mentality is less likely to exist in a small or micro-business. Second, there are fewer opportunities for a given occupation--often not enough to justify a program and thus specialized occupational programs may have to be merged into more generic programs.

Rural Labor Market Statistics

The higher rate on nonmetro self-employment is important in terms of the educational needs it implies, but is also important because of its effect on the labor statistics. The self-employed may earn less and less in a weak economy yet rarely become officially unemployed and therefore unemployment rates would not accurately reflect the need for income in rural areas. This, unfortunately, is only one of many flaws in statistics on the rural labor market.

Typical government unemployment rates include only those unemployed who are actively seeking work. Rural job seekers generally do not go to employment offices or rely on newspaper advertisements. Usually they know what is available by word of mouth and therefore are more likely to be discouraged workers. Table 20 indicates a rate of discouraged workers, part-time workers (out of necessity rather than choice), and subemployment about 50 percent higher in nonmetro areas than in metro areas.

TABLE 20

PERCENT UNDEREMPLOYMENT, 1977

	Nonmetro	Metro
Discouraged workers	1.20	0.95
Part-time workers for economic reasons	4.30	3.30
Source: Wilson, 1980		
Sub-employment (Males) (1970)	25.0	17.8

Source: Tweeten, 1978

The problem is exemplified by a recent study of Gladsden County, Florida. The county reported an unemployment rate of just over 9 percent, local industries were declining rapidly and laying off workers. An independent survey found that 26 percent were actually unemployed. The original count was based on unemployment compensation for which most of the laid-off workers were ineligible (Korschirg, et al., 1978).

Unemployment rates, which are frequently used as a criterion for the distribution of federal program money, were reported to be much higher in cities than in nonmetro areas in 1980 (Table 21).

TABLE 21

PERCENT UNEMPLOYMENT RATES, 1980

	Central City	Suburb	Nonmetro Farm	Nonmetro nonfarm
Total	8.4	6.2	2.8	7.8
Males, over 20	7.4	5.1	1.7	6.5
Females, over 20	6.9	5.3	2.8	6.8
Blacks	14.6	10.7	6.9	13.7
Youth, 16-19	22.7	16.3	8.8	18.6

Source: Leon & Reeves, 1980

Youth unemployment in 1980 was reported as 23 percent in cities; 19 percent in nonmetro; nonfarm areas; and only 9 percent among farmers. Similarly, black unemployment was 15 percent in cities; 14 percent in nonmetro; nonfarm areas; and 7 percent for blacks on farms. These numbers are obviously in contrast to poverty data for the same groups. A glance at the difference between unemployment rates in nonmetro poverty and nonpoverty counties, in Table 22, reveals very little difference--indicative of the nature of rural unemployment. Therefore, unemployment may not indicate need; the rural poor are often drastically underemployed. This has been brought repeatedly to the attention of Federal policy makers (Marshall, 1974; Tweeten, 1978; Nilsen, 1980), yet unemployment is consistently used in federal allocation formulas.

TABLE 22

PERCENT UNEMPLOYMENT FOR POVERTY AREAS, 1980

	Nonmetro		Metro	
	Poverty	Non-Poverty	Poverty	Non-poverty
Total	7.7	7.1	13.4	6.5
Youth, 16-19	18.4	17.2	33.9	17.2

Source: Leon & Reeves, 1980

A 1978 study by the National Commission on Employment and Unemployment Statistics stated:

> The ineluctable conclusion from the foregoing examination of issues is that no amount of massaging of unemployment statistics will provide appropriate measures of employment needs in rural areas. Refinement of data gathering and processing techniques will not salvage the situation. Unemployment is simply the wrong concept. (Tweeten, 1978)

Agricultural Traditions and Agriculture Employment

Despite the rapid rate of industrialization, agriculture continues to retain its hegemony over rural communities in many States. Agricultural employment has declined precipitously, from 12.5 million employed in 1980, to 10 million in 1950, to 7 million in 1960, to less than 4 million in 1978. Today, while only 9 percent of the nonmetro work force is in farming, agricultural production is not declining. Instead, shifts to large scale farming demand new skills. Thus, a growing part of the labor force is needed for agricultural-related and agribusiness occupations, such as feed products, farm equipment, food processing, paper products, and marketing. The size of the labor force employed directly in production farming understates the influence of agriculture in the rural economy and in rural politics. It also undercounts the number of persons in agricultural occupations by those who farm for their own needs or for inkind unreported income (See Table 23).

TABLE 23

PROPORTION OF EMPLOYED UTILIZING
AGRICULTURAL/AGRIBUSINESS SKILLS, 1975

United States	6.1
Northeast	2.8
North Central	8.8
South	8.4
West	7.3

Source: USDA, 1975

The strength of agriculture is often brought to bear in the political arena. As the single rural constituency with both the cohesiveness and the power to influence policy, the farm bloc has, it seems, even more influence than its votes would suggest. A disproportionate number of members of Congress and State legislators represent agricultural areas.

The Consequences: Framing the Portrait

While the numbers may portray an "interesting" picture from a purely descriptive standpoint, they also are quite relevant to federal policy. At the most elementary level, the data affect the way in which funds are distributed, both by formula and by application, among recipients. If, for instance, data on unemployment do not mean the same things in urban and rural areas, they distort any formulas on which they are dependent; i.e., unemployment rate is a criterion in most employment and training, and economic development programs including vocational education. If public assistance programs are used as a proxy for poverty and if public assistance programs are undersubscribed in rural areas, then the distribution funds based on public assistance participation rates affect suburban and rural areas differentially. Many programs, including vocational eduation, do use AFDC or number of people on welfare as distributional criteria.

At a slightly more sophisticated level, cost-of-living differentials and scale differences that affect per pupil costs mean that equivalent resources may require different per pupil expenditures for districts. The knowledge of what services dollars buy in specific locales is necessary to judge the outcomes of the services.

Moreover, lack of understanding of the nature of rural economies and rural labor markets can lead to inappropriate policies. Where small business and self-employment are common, vocational education could teach more generic skell and encourage independence. In these instances standard placement rates and employer satisfaction may not measure success. The data also indicate that the role of agriculture in the rural economy is understated in labor market projections and thus in educational planning.

The institutions that provide the education to rural areas also differ from those in urban areas. Their size restricts the services they can offer, and sometimes makes them ineligible for federal or State funds. Isolation makes it more difficult to attract the specialized personnel needed to expand offerings and improve programs.

Thus, the data suggest that the way in which programs are implemented, and level of support needed, and the consequences are highly dependent on the nature of the population and location served, and local conditions need to be carefully considered in all State and Federal policies.

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APPENDIX 5

NON-RECEIPT OF FEDERAL VEA FUNDS: WHY SOME DISTRICTS DON'T APPLY (and other issues related to rural vocational secondary education)

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October, 1980

(This study was conducted under contract from the National Institute of Education. The opinions expressed are solely those of the researcher.)

PREFACE

This report is one of 11 small contracted studies and commissioned papers of the "Intramural Study of Vocational Education in Rural and Sparsely Settled Areas." This study is, in turn, part of the larger Vocational Education Study being conducted by the National Institue of Education (NIE) under mandate from Congress (Education Amendments of 1976). As noted by S. Rosenfeld (memo, January, 1980), the Intramural Study is:

> . . . predicated on the assumption that distinctive features of rural areas of the United States affect both the composition and content of vocational education programs and the manner in which they are provided and, therefore, deserve special attention in policy formation. . . . Despite large regional differences among rural communities, it is presumed that the impacts of scale and isolation systematically influence policy issues" (p. 1).

Dr. Katrhyn A. Hecht, independent consultant residing in San Francisco, was contracted directly by NIE in the amount of five thousand dollars to conduct this small study and produce an interim and final report. A stipulation of this contract required the contractor to supplement work underway at the School of Education, University of California, Berkeley (UCB), contractor for the distribution of Vocational Education Act (VEA) funds study. Coordination was to include using available documentation as well as contacts already established by the UCB study staff with their sample states. The UCB study also was able to augment the funds provided to Hecht by supporting limited travel which was not part of the original contract and budget.

This study and final report are intended to identify problems and issues relating to why some rural districts do not use federal vocational education funds as well as more general issues concerning use of vocational funds in rural schools from the perspective of state and local vocational administrators. Because of its limited size, the study is an attempt to identify issues rather than provide answers. It is hoped that some of the problems highlighted in this report, along with the results of the other rural studies, will stimulate further study and possible legislative and administrative action at federal, state, and local levels.

ACKNOWLEDGEMENTS

The author wishes to acknowledge the cooperation of those state vocational administrators and rural school superintendents who gave so willingly of their time and thoughts. In order that they may remain anonymous, no specific thank yous are appropriate. The author also is grateful for the encouragement to undertake this project from Dr. Stuart Rosenfeld and his help in refining the thrust of the study.

The author also is indebted to Dr. Charles Benson, Principal Investigator, and Dr. E. Gareth Hoachlander, Project Director, of the University of California, Berkeley, Project on National Vocational Education Resources, for their advice, support, and fine colleagueship throughout the project. Numerous members of the UCB study staff also were most helpful.

The author is grateful to all of the above mentioned persons but is solely responsible for the work reported. The views expressed are those of the author and the people she interviewed and do not represent the position or policy of the National Institute of Education.

I. INTRODUCTION TO STUDY

Rural communities are as diverse as the culture and ethnicity of their populations, their geographic locations, and their economic conditions. What they do share in common is their small size and relative isolation. The advantages and disadvantages of educating children in rural communities as opposed to larger, urban and nearby suburban communities are frequently debated. But there can be no argument about the fact that the provision of education for rural communities of small populations, often spread over large areas and distant from their nearest neighboring communuities, has its own unique problems and challenges.

This small study was directed at beginning to identify those special factors related to providing vocational education to rural secondary students, specifically focused on school districts who do not use federal Vocational Education Act (VEA) funds. The question of why some rural districts do not apply for federal (and often state) vocational education funds and what vocational education services their students may or may not receive was of primary concern. Current federal data collection and other research efforts do not provide information on districts who do not receive VEA funds. This question and other related topics was discussed in the field with state vocational administrators and rural school superintendents in the two selected study states.

The first section of this report describes the study design and how it was refined and implemented. The second section summarizes the problems and issues identified during the site visits.

Overall, the investigator found local superintendents most concerned about finding and keeping vocational teachers who could meet state standards. Besides teacher difficulties, the small amount of money and the large amount of paper work discouraged some from applying for federal funds. Reasons for not wanting to join or contract with area vocational schools included cost, travel, distance, and political considerations. Districts not receiving federal and/or state vocational funds often had their own industrial arts type program, which some felt better suited their community and small numbers of students than specialized vocational offerings. Superintendents, who were the vocational administrators for their schools, seemed overloaded with various federal programs' requirements with which they had to keep up. In discussion, they sometimes were not sure whether the requirements which concerned them were federal or state.

At the state level, vocational administrators also were concerned about the proper role and funding for Industrial Arts as well as career education programs. Many felt the setasides in the 1976 Amendments unfairly complicated the mission of vocational education. Among ideas for improving small rural vocational programs, multi-occupational cooperative programs were under development in both states. State officials, not surprisingly, had more direct problems with and suggestions for changing the federal law.

Although there were differences in emphases between state and local concerns, a reading of both suggests that there are issues particular to rural vocational programs and that resolution would require the combined thought and efforts of federal, state, and local educators. However, it should also be noted that many of the issues raised about vocational education are relevant to the delivery of all education services in rural communities, and they should not be considered in isolation.

There is no claim that the findings cited in this report are generalizable to all rural communities. The study was seen as an opportunity for some educational administrators at state and local levels to voice their concerns about vocational education in rural communities and for these to be transmitted to the federal policy level. The potential impact of this effort will be as one of several small rural studies within the larger NIE Vocational Education Study currently being conducted under Congressional mandate. Hopefully, the combined information from the rural studies will serve to bring attention to rural concerns, influence policy setting, and stimulate further research efforts.

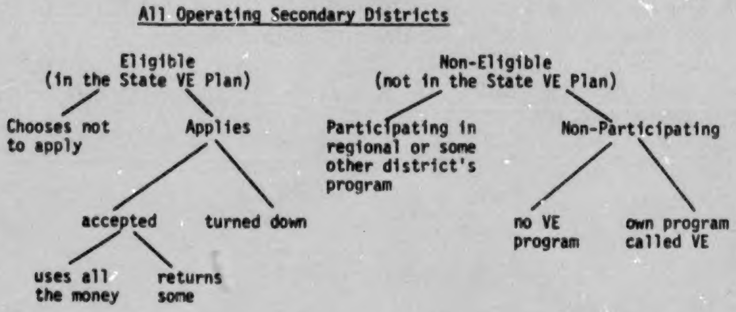
II. STUDY DESIGN AND ITS IMPLEMENTATION

Scope of the Study

The original purpose of the contract as outlined by NIE was to look for state level explicit and implicit policies and attitudes toward rural schools and their impact on rural school districts in several of the "core" states in the broader Vocational Education Study. The scope was redefined with the concurrence of NIE to be: more focused in terms of issues; include viewpoints of local as well as state administrators; and be more realistic within time and budget constraints.*

The study as redefined focused on the issue of non-participation by secondary school districts in federal and state funded vocational education programs (or non-receipt of federal and/or state vocational education funds). The issue was considered significant, encompassing several types of questions and an area about which no information was available nor currently being researched. Although it is generally assumed that those secondary districts who do not receive federal VEA funds are small, rural ones, information at the federal level is not collected on districts who do not receive funds, nor is anything known about their reasons for not participating or the vocational services received by students within these districts.

The following decision matrix was designed to further define the possible instances of non-receipt/non-participation:


All Operating Secondary Districts
Eligible (in the State VE Plan)
Non-Eligible (not in the State VE Plan)
Chooses not to apply
Applies
Participating in regional or some other district's program
Non-Participating
accepted
turned down
no VE program
own program called VE
uses all the money
returns some

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*K. Hecht, Interim Report, Order # NIE-P-80-0005, April 25, 1980.

Looking at non-receipt/non-participation in this way suggests that there are two major concerns within the overall topic. The first is the concern for students who may be excluded from vocational education because programs are not offered locally (in their district). This concern can be examined mainly among those districts under the Non-Eligible branch. It also can be examined in those districts who are eligible but choose not to apply and those who apply and are turned down, if these decisions work against serving student needs.

The second major concern related to how federal money is being used and can be examined among those districts and decision points is found under the Eligible branch.

There are many issues which may arise within this framework. One of interest to the contractor is looking at those districts who fall in the "non-eligible, non-participating, own program" group to see if what they offer as vocational education is different from the types of programs offered in those districts which must comply with federal and state regulations.

Another issue indirectly related has to do with innovative/demonstration programs to improve training opportunities for individuals in rural locations. There are funds available to states under Sec. 132 (a)(2). There may also be innovative practices under basic grants or in those districts using only local funds. While the major thrust of the study was concerned with the problems underlying non-participation, promising practices to confront some of these problems also was sought.

Preliminary Survey

Before proceeding further, it was decided to survey the sample of ten states from the UCB study. Eight of the ten state vocational education directors, or their designated contact, were called and interviewed. (One state was excluded because its participation in the UCB study was still under negotiation and in another, the appropriate person was not available.) The survey served as the base information to both choose the states and to further develop questions and issues for the site visits.

The following questions were asked of the sample states:

1) How many operating secondary districts are not in the state vocational education plan (or are not eligible to receive state and federal money)?
2) Of those that are in the plan, how many do not apply?
3) Of those who apply, how many are not approved and/or do not receive funds?
4) Of those who receive funds, how many turn back at least some of the money?

It should be noted that during these phone interviews, state directors were not asked to do any research to answer the questions, and estimated or "don't know" answers were acceptable. The results of the phone survey were reported in full to NIE in the Interim Report (April 1980) and are summarized here.

In all but one of the states contacted, all districts were in the plan or were eligible to receive funds. In one state with relatively large sized districts, all districts participated. In one other, all students theoretically were offered an opportunity through area vocational schools, although no information was kept at the state level as to how many districts actually had students receiving area school services. In the rest of the states, there were some number of districts who did not participate. In one state, this was said to include mostly a few wealthy ones. In two others, only a very few (five or less) did not participate, usually because the amount of money was too small. The three remaining states had a more sizeable number of non-participating districts which were mostly small and rural. One state did not have current figures and did not wish to estimate. For the other two, the percentage of districts not receiving federal and/or state VE funds was 9% and 19%. These latter two states were chosen as the location of the site visits. (Of course, approval from the state director of vocational education was requested and obtained in both cases.)

Concerning the question about non-approval of applications and return of funds, no problems specific to rural areas were identified. There was some concern expressed about the ability of rural districts to use the setaside portions of the Vocational Act funds.

The Selected States and the Site Visits

During May and June 1980, site visits of one week duration each were made to two states chosen because of their relatively high proportion of non-participating districts. One state would be considered primarily rural and a mid-western or plain state, highly dependent on agriculture and its related businesses, and with a stable population. The other state has several large urban centers as well as many small rural communities, is diversified as to farming and industry, and has been growing in population. It would be considered a western, mountain state.

In preparation for the site visits, the investigator reviewed five year and annual plans plus other documents available from the UCB study files. Also, a site visit information sheet was prepared to give state and local administrators a brief introduction to the study and its purpose as well as to provide a list of questions/issues suggested for discussion (see Appendix). A copy was given to each person with whom the investigator visited. Questions were divided into three sections: 1) for districts who do not receive federal vocational education funds, 2) for districts who do receive federal vocational education funds, and 3) for all rural districts and state officials. (This handout was used mostly for information and to get discussion started; seldom did the interview follow the suggested questions. The investigator did not attempt to follow the handout if the person led the discussion in other directions.)

At the time the state directors of vocational education were contacted in order to obtain their approval and to set a date for the visit, the investigator asked for the directors' assistance in selecting rural districts to visit. In both cases, the state directors or a designated person offered to select the sites and make contacts with the superintendents. In both cases, it was felt that the advantage of entree through the state officials far offset possible bias. It was this same rationale that led the investigator to accept the offer of being accompanied by a state person in making the actual visits to rural communities. (Although this might now always be the case, in both states the investigator felt the person which accompanied her facilitated the school visit and provided very useful contextual information.)

During the two weeks of field work, 23 interviews lasting anywhere from 30 minutes to 3-1/2 hours were conducted, 12 with vocational administrators at the state level, including the two directors and nine with local school superintendents. Among the school districts, four had no federal or state vocational funds, two had less than $500 apiece for consumer home economics, and two offered office practice and either agriculture or welding, funded by state and/or federal funds. One was an Indian reservation school with no categorically funded vocational programs. A more complete description of the districts visited follows.

Description of the School Districts Visited and Their Vocational Offerings

Eight rural school districts were visited, four in each state. The smallest secondary program had 14 students in grades 9-12, drawn from a 20-mile radius. Five had less than 100 students in 9-12, two had less than 200 students, and one had 500, drawn from 30 square miles. The towns in which these high school programs were located had populations ranging from 150 people to almost 5000. Three were over 1000, and one over 2000. (The one larger school in the one larger community was selected because it had recently given up federal and state vocational funds.)

In the first state visited, two of the four districts received consumer home economics funding (less than $400 each). No other state or federal funds were received. All of the districts visited had some form of home economics and industrial arts. Some IA programs were more extensive than others, ranging from "shop" to eight subjects. There was some office occupations training. The one larger high school mentioned above used to have four approved vocational programs and now, without federal or state funds, has more offerings of a less intensive nature.

In the second state visited, the state had selected two rural districts with no state or federal vocational funds plus two that had funded programs as a contrast.* For those two with no outside funding, one had previously contracted with a nearby district and one never had an approved program. Both had business or typing, and home economics. The other two districts had state approved vocational programs and received funding for agriculture (26 students) and office practice (3 students) in the first, and office practice (22 students) and welding (20 students) in the second. The welding and office practice programs in the latter district were provided at the local high school through a contract with a community college. It also had a locally funded home economics and work study program.

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*In this sample state, federal VEA money is not used for basic program funding at the secondary level. However, since state program approval is necessary for districts to receive federal or state vocational funds, reasons for and impact of non-participation should be similar.

One Indian reservation high school was also visited. It was a partially residential school serving 168 students in grades 7-12. The reservation high school had limited general shop, secretarial and home economics programs but received no special vocational funding [and the superintendent was unaware that any existed].

III. PRESENTATION OF LOCAL AND STATE COMMENTS

This section reports information and opinions obtained from site visits with state vocational education administrators and rural school superintendents. Topics ranged beyond those of non-receipt of federal vocational funds to include more general rural vocational, rural, and vocational education concerns.

The comments are presented with minimal analysis in order that the opinions gathered can be reviewed by others as well as the investigator. The comments are grouped by topic. The reader will note overlaps and interrelationships among topical areas. No attempt was made to avoid this as it is a realistic indication of the complexity of some of the issues.

The first three topics (Non-Receipt of Federal and/or State Vocational Funds; Area Vocational Schools and Contracts; and Teacher Related Problems) describe specific reasons reported by superintendents for not having federal and/or state funded programs in their districts and not sending students to regional centers or to other districts for vocational training. Teacher related problems are included here as a separate topic, as it seemed to be an area of great concern to rural administrators and one which impacts their ability to use federal and state vocational funds.

The next several topics (Some Specific Vocational Programs; Industrial Arts; Career Education; Sex Equity; and Community Involvement) describe comments on vocational education in the rural districts. It is based on the local site visits as well as more general information on rural programs from state vocational supervisors.

Next, Innovative Programs as reported by state and local administrators are presented. One particular promising practice under consideration just for rural schools (Multi-Occupational Cooperative Education Vocational Programs) is discussed separately.

Following vocational programs and innovations are topics concerning administration of rural vocational programs. This includes the difficult situation for rural superintendents (Rural Vocational Administrators), their suggestions (Problems and Suggestions--Local), and their overall program concerns (Vocational Education Philosophy).

The last four topics mostly express concerns of vocational education administrators at the state level (The Vocational Education Act and

Regulations, and Federal Funds) and some state administrative activities (State Planning, and Research and Related Activities).

Non-Receipt of Federal (and/or State) Vocational Funds

Several reasons were given by superintendents for not applying for federal (and/or state) vocational funds. The most frequent reason mentioned was teachers: difficulty in finding teachers who meet state vocational requirements* and in keeping them especially given competition from industry. (See Teacher Related Problems). The next most frequent reason can be paraphrased as 'not worth the time and paper work for the money involved.' To complete all the necessary federal forms for sums as low as several hundred dollars was not judged by several superintendents to be an effective use of their time. (Most of the superintendents interviewed also did the work of federal programs coordinator and the vocational administrator plus varied other functions which would be performed by support staff in larger school districts. See Rural Vocational Administrators.)

Other comments were heard less frequently. One superintendent noted that it was not worth the cost of redoing facilities for a vocational program given the small number of students involved. Another noted that the programs they already had were not that different from approved ones and that given the problems of finding teachers who meet state vocational standards, it was not felt necessary to have a state approved program. One superintendent had withdrawn from receiving state and federal money because he differed from the state officials on the intensity of the program offering--he now has more vocational offerings of shorter duration (see Philosophy of Vocational Education).

In a similar vein, several districts were satisfied with or would rather expand their Industrial Arts program, which was not a state approvable vocational program in either state visited (see Industrial Arts). General problems of local funding for any new programs also were noted in several locations.

Area Vocational Schools and Contracting

Besides programs in their own high schools, rural districts have other options for providing vocational education for their students. Among these, they can join in, be part of, an area or regional multi-district vocational facility, or they can contract to send their students to these schools or to another school district with a vocational program. All of the districts visited had decided against these options, for a variety of reasons.

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*Districts must have state approved programs and be part of the State Plan for Vocational Education in order to receive federal funds.

First, in both states there were area schools available in a large portion of the state. The communities visited had not joined to form area schools for both practical and political reasons. On the practical level, one can include isolation, transportation time and costs, and money. When asked why communities in the area had not joined to form a vocational school, one superintendent said. "It would never work around here--could never consolidate districts enough around here because of distance." Another noted that when the state first discussed the requirements, that the number of students needed and the money required for evaluation meant that they would have to include too large an area to be practical. Several mentioned that transportation time was a problem (time in addition to the travel many students already had done to get to the local high school) and that it would make it hard to fit in all the required subjects. Transportation costs were also a problem, especially in light of current energy shortages. Uncertain finances due to pending tax cuts and changes in state finance plans were also mentioned, as well as a lack of monetary incentives from the state to start new area schools.

The political reasons for not joining an area school were related to the history of forced district consolidation and fears of losing the community high school. One superintendent noted that in his community there was "a lot of hard feeling toward H------ (the town where the area school would have been located). . . feel H------ tried to destroy our community during reorganization. . . the state legislature left districts to kill each other off during reorganization." Another noted school reorganization created great animosity, and the regional vocation centers came soon after. Two superintendents said they had considered joining other districts, but the community felt it would lead to closing the school. (One personally felt just the opposite, that joining might be what would allow the high school to continue.) Another reason given is that the School Board felt that with only one vote on the multi-district board, they would not have enough control.

Reasons for not contracting with established centers or nearby districts with approved programs were very similar to those for not joining area schools. Bad feeling due to consolidation efforts and transportation time, and costs were again mentioned. The Board that did want just one vote as part of an area board also rejected contracting because then it would have no vote and could only place students in left-over slots. The small number of students was mentioned in several ways: the board did not think it was worth the costs for a few students; "for two or three, federal/state money isn't enough to cover excess costs;" and removing even a few students from already marginal size classes made it harder to justify an adequate curriculum in the home school and keep the faculty intact.

In questioning one superintendent who was trying to attract other districts nearby to contract for vocational services from his district's underutilized facility, he gave two reasons why the nearby smaller districts would not contract: (1) athletic competition is taken very seriously and leaves bad feelings, even affects the merchants in town*, and (2) they are jealous of the vocational facility.

One rural high school visited had contracted with a community college to provide welding and office education. Courses were given at the high school, and personnel were hired from the community. The superintendent was very pleased with the arrangement as it freed him from having to handle the administrative details.

In questioning state officials in both states visited about the possibility of opening more area vocational schools, they agreed that the ones easiest to arrange had been established, and it was unlikely more would follow.

Teacher Related Problems

Problems of hiring and retention coupled with state vocational teacher standards was one of the major factors discouraging districts from applying for state and federal vocational funds. This in turn created program-related issues for small schools.

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*His school is considerably bigger than the neighboring ones. They all play football in the same league. The larger school wins most of the time. Some of the schools they compete with are so small that every boy has to play to have a footbal team--and they do!

First, it is necessary to understand that in the two states under study (and in most others), in addition to state standards for teacher certification, there are additional qualifications one must meet to receive a vocational credential. In order to have a state approved vocational program (and thus be eligible for state and/or federal funds), the teacher must meet the credentialing requirements. One of the main requirements for a credential is work experience in a specific vocation. As a state vocational administrator explained, vocational training should be "true" skill training, and one has to have performed the skill to teach it.

Teachers in general are more difficult to recruit and retain in rural communities. In one of the states, it was estimated that the turnover in rural districts was better than 30 percent a year. Vocational teachers seem particularly hard to find and keep because of competition from industry for people with vocational skills, especially with its ability to pay better salaries. (This seemed particularly true for vocational agriculture teachers.)

The necessity for the vocational credential combines with hiring problems. Several districts expressed reluctance about applying for vocational funds, or problems with maintaining their current state approved programs, because it is difficult to find teachers who have vocational credentials. Several superintendents mentioned they felt they could or have hired teachers who were "qualified" in their judgment but who did not meet credentialing requirements.* For example, one district has a certified business teacher but cannot apply for vocational funds for a typing program because she does not meet credentialing requirements.

Another program implication is what the investigator calls "teacher-dependent programs." The availability of a credentialed teacher, more than student needs, may determine approved vocational program offerings. This is even a greater potential problem in the smaller rural schools which more often apply for a combined program, because it is especially hard to find a replacement teacher with the appropriate combination of vocational credentials.

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*One state administrator countered that the requirements were not that demanding and that there were various appeal and exception processes available.

Some Specific Vocational Programs

Under this topic, comments received on specific vocational programs in rural high schools are noted. (Industrial Arts and Multi-Occupational Cooperative Education Vocational programs are considered as separate topics.)

The most frequently encountered program during the site visits was home economics. (Some were receiving federal or state vocational funds, and others were wholly locally supported.) In the cases observed, there were no males or very few in the regular program. Several schools had set up what is sometimes called "bachelor living," a special, usually shorter, home economics course for males. (See Sexism for further discussion.)

At the state level, there were some comments concerning whether consumer home economics should be part of vocational education. One vocational administrator said: "It has been the stepchild of Vocational Education for years. . . there is no continuity in skill building." He added that to be in an occupational home economics program, one is required to pick a specific area, such as fry cook or babysitter, which he felt was too limited an experience. Most superintendents seemed to accept home economics as a regular part of the high school curriculum, one noting: "I believe it serves the dual role of women." However, one superintendent said he was contemplating dropping it but he did not want to lose a good math/science teacher--the husband of the home economics teacher!

The next most frequently encountered or discussed program was vocational agriculture. Several superintendents noted that if they had resources to add a program, it would be vocational agriculture. But, they also noted that even if they had the resources, it would be unlikely they could find a teacher with both the academic and vocational qualifications. A state official said it would be unlikely to find a "Voc Ag" program in a high school of less than 100.

One superintendent switched to an Industrial Arts program because only a small proportion of the students who took "Voc Ag" ended up in agriculture, and his district did not have enough students for both facilities. Another superintendent, also discussing the placement issue, said he was not concerned about it, that "the most beneficial aspect [of vocational agriculture] was attitude toward work" and that the federal definition of intent was too narrow, that "almost everything in a rural community is agriculture related." He added that "what a student really learns is management." When asked, "Why not teach that?", he replied that he would if the same quality program was available statewide and nationally.

The latter statements speak to comments heard elsewhere, that vocational agriculture is the most sophisticated of vocational programs in rural schools and considered an elite program in a rural school. It is a four-year program where most others are two. The related student association is very active. The program has mostly male students, although in one state they were proud to note they had three female "Voc Ag" teachers.

There was some indication in the states visited that the number of vocational agriculture programs on a statewide basis will grow slightly rather than decrease. In some areas, personpower needs have increased, except for manual labor, especially in services and sales related to production agriculture. One vocational agriculture administrator noted that he felt the four-year program approach was best and that regional centers (offering programs for juniors and seniors) could not do as much. It seems unlikely that the smallest rural schools could add such programs.

Two other programs received some attention. Work-study efforts were underway in two of the districts visited, neither were approved vocational programs. One was an informal arrangement where seniors could work in the afternoon and employers agreed to set up objectives, but students received no credit. The second one was set up with federal funds for potential drop-outs, with a special teacher for intensive remedial work and a half-day job in the community.

Although none of the schools visited had auto mechanics, it was brought up at the state level as a program often requested in somewhat larger rural high schools. Although one trade and industry specialist felt more programs should not be funded, because there was not enough need for the numbers being trained, another felt it was "better for students to learn early what you don't want to do" and that there is some useful carry-over to other occupations. Although in one state the placement rate for auto mechanics was not considered satisfactory, no programs had been terminated for that reason.

Industrial Arts

Industrial Arts (IA) seemed an important issue at both state and local levels and drew more diverse opinions than any other topic. (See also Career Education and Vocational Education Philosophy for related comments.)

Although IA is an option under the Vocational Education Act, in neither state visited was it considered an approvable vocational education program for state or federal funds, or under the supervision of state vocational administrators. As mentioned previously in this report, among the small rural districts visited, it was a popular high school subject and often the only "vocational" training other than home economics supported by the districts. In several of these high schools, almost all the male students and from zero to 15 percent of the girls take IA. Programs ranged from "shop" to one program with eight specific skill areas. Welding, drafting, and carpentry were typical areas.

Several rural superintendents who supported IA and would like to be able to expand their programs felt it was well suited to the vocational needs of rural communities, with mixed employment opportunities and small numbers of students. It was seen variously as pre-vocational in the sense that students could continue their training at postsecondary institutions, as vocational in that graduates could get jobs, and also as "leisure-time." The needs seemed to be for additional materials, equipment and facilities to improve and expand programs. One superintendent wanted to hire a full-time IA teacher; another wanted to hire someone specialized in small engine mechanics--neither felt it possible given the small number of students. No one was interested in giving up industrial arts in favor of an approvable vocational program.

At the state level, there seemed to be a general sentiment that although IA was a worthwhile activity, it was not vocational and should not be funded as such. State vocational administrators differed in their interpretations of what the mission of IA should be. One state official saw it as leisure-time. A more common opinion is that it should serve as a "feeder for vocational education" and "to help young people make [career] decisions." One saw it as career exploration and part of career education while another saw it as introductory to vocational education. Another, agreeing with the exploratory opinion, went on to say:

> IA is supposed to be a study of industry and its processes, including theory and lab. What they are teaching now is antiquated. IA is not skill development but exploratory. It is an important part of education but not vocational education because it doesn't prepare [students] for jobs.

Despite these opinions, the major concern at the state level was that IA not take vocational state and federal funds from approved programs and dilute them. When asked if they would be in favor of IA as approved vocational training if additional funds were available to support it, at least one official in each state favored the idea to some extent:

> I might go for it if there was extra money and it was for small schools only, but it would be very costly to equip. You could equip it for less than an approved vocational program.
>
> It would be OK if funds were earmarked for small schools to provide exploratory experiences in industrial occupations.
>
> If we had more money, I would like to see us take over IA supervision; provide technical assistance to upgrade programs, make them relevant to today's jobs--would still be exploratory. For example, 'world of construction'--one would look at career possibilities rather than teach skills.

The latter speaker also suggested units in transportation and agriculture-related industry. One of the other above speakers saw a danger in this route, as he felt it might serve to support small schools that "probably shouldn't exist" and would discourage cooperative and contract concepts.

In suggesting changes in the federal law, one state administrator felt the option to fund IA should be removed, as people see the option as an expected.

Career Education

Career education is not funded under the Vocational Education Act, and in neither state visited was it the responsibility of the vocational administrators. However, the topic came up in relation to Industrial Arts and on its own, as an unmet need especially in small rural schools. All of the comments expressed here were from the state viewpoint. (It was not discussed at the local level, except in relation to the need for better vocational guidance services.)

In both states visited, it appeared that career education has almost ceased to exist on the state level since the withdrawal of federal funds for this purpose. In one state, the state plan for career education was said to have died when the state legislature did not approve expenditure of federal funds because they would have had to pick up the program in five years. The other state had phased out most of the state program.

In both states, the remnants of the career education program appeared to have been divided between the vocational and general elementary and secondary units. As with industrial arts, vocational state officials felt it was worthwhile but not vocational education. It seemed to the investigator that career education has fallen between the cracks, with neither group willing to take responsibility for career education nor considering it a priority item.

Unfortunately, according to one state administrator, lack of career education is more prevalent in rural schools. He added, "Career education can make a bigger impact on [students taking] vocational education than anything else."

Sex Equity

Since some federal vocational funds are targeted to promote sex equity, this was an issue the investigator kept in mind while visiting schools. In one state visited, the only state administrative funds available for this activity were from federal sources ($50,000). (In the other state, this information was not obtained.)

As noted earlier under descriptions of the most common vocational-type programs in the small rural schools visited, most home economics and industrial arts courses were virtually sex-segregated. In questioning superintendents about this, they seemed aware of current laws and state efforts concerning sex equity. When asked why there was not more crossover of males and females between home economics and industrial arts, one superintendent said simply, "We don't encourage it."

The only exception to this pattern seemed to be special courses, still segregated. For example, at one school senior boys take home economics and senior girls take shop for one nine week period. Several schools (including the Indian reservation school) talked about having or thinking about setting up "bachelor" courses (special home economics) for the boys.

One superintendent noted that a few girls do take IA but they do not go on to postsecondary vocational technical courses (as the boys often do). He said that "girls still think a nine month secretarial course will help them get a good job."

When one superintendent was asked if "parenting" skills were taught at his high school, he replied, "The girls get all that in home economics; boys probably don't get that."

Take, for example, one high school offering IA and Home Economics (some federal vocational funds supporting the latter). The enrollment pattern was:

	Male	Female
IA	60	2
Home Ecnomics	1	60

The superintendent said the highest switchover was five or six students in the first year it was "allowed." When asked why this pattern persisted, he replied, "Knitting and crocheting sort the boys out*. . . girls are afraid of welding."

In this school district and one other, the superintendent stated specifically that they would like to increase their IA offerings. This comment was followed by an explanation that almost all the boys currently took IA and therefore they could not increase enrollment to justify expansion [ignoring the potential to increase enrollment by attracting girls into the IA program].

At the state level, one sex equity coordinator said that the only vocational education area with fairly equal male/female numbers was distributive education, but placements still were usually in traditional roles.

Asked whether he had seen any change in the rural areas, one state administrator said that "maybe [there had been] some attitude change," but because of the high turnover in administrators, there was a need to keep training. He added that "rural communities don't see it [sexism] as an issue or concern."

Another state official felt industry was ahead of schools in looking for non-sexist placement and that therefore the argument of 'why train them, if they can't get a job' was no longer justified.

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*He went on further to explain that one must take all the home economic skills, that they did not want to revise the curriculum, and that the home economics teacher felt knitting and crocheting were "essential."

One state director noted that rural communities are conservative and the change process slow: "It's a long process to introduce change and convince the legislature it is worthwhile." Although he agreed that there seemed to be some change in attitude, he added that after five years of sex equity funding, they did not expect to "see much different that couldn't have happened without it."

Community Involvement

Given emphasis in recent rural education rhetoric on the importance of community involvement, there was surprisingly little evidence during the site visits.

Community influence was brought up in relation to accounting for the almost non-existent drop-out problem in the communities visited. It was said that adults in these communities see high school graduation as important. One added that there "just wasn't much else to do in town." However, this high completion ratio was followed, at least in one of the states, by a low postsecondary enrollment of students from small communities. One explanation was that "students don't see the importance of going on."

In one very small town, the superintendent noted that the seniors didn't have much to do their senior year and that he had wanted to set up some sort of "co-op" program. The Board was opposed to students working in the community because they felt "someone [the employer] might benefit." They also were opposed to travel outside the community for insurance and liability reasons. The superintendent had managed to arrange for a ten-day senior trip--"in small schools, the kids need to get out."

There was no clear pattern which emerged concerning the graduates of these small high schools. One superintendent said some students come back but the town doesn't have much to offer them. Another said the boys come back but the girls get married or go on to school. He added that counseling "probably was not as extensive as it should be."

There were few comments at the local level relating school to community development. One superintendent said he was looking for a farm-related industry and would like to set up a related high school program, but he did not have trained people to do the paper work to attract industry. His community had previously had a project to build apartments, but, as he put it: "The [federal] paper work and regulations were terrible--wouldn't do it again. [We] need more money with less strings."

Innovative Programs

Both state and local vocational administrators were asked if they knew of any innovative vocational programs for rural districts. (Local administrators did not provide much input in this area.) Responses received were of two types: (1) descriptions of programs in operation, and (2) suggested innovations. Actual programs identified as innovative are described first.

Two of the programs described as innovative for rural schools used mobile units to serve many districts during the school year. Both were state run with federal vocational funds, exemplary and guidance. In one state, mobile units, each specialized in one vocational area, circulated in one especially rural area of the state without an area vocational facility. A state administrator called it more of an exploratory program, career awareness, than vocational. When asked if there were plans to expand the mobile program to other areas, he said there would not be adequate funds and that it was hard to maintain staff.

The other mobile program consisted of two career guidance vans which cover half the state (excluding the major urban areas) each year. They stay from a few days to two weeks, stop only on request, and serve students and teachers, as well as adults in the community. The administrator in that state felt they would like to do away with the van and provide more consistent vocational guidance services through area schools. In this direction, there is a pilot program just starting which funds vocational specialists at area schools to train general school counselors. (As an aside, the guidance van is made available in the summer for CETA to use with migrant workers.)

One state visited requires area vocational schools to serve both secondary and postsecondary students. Administrators there felt mixing secondary and postsecondary students in some classes was an innovation that was working well. Besides increasing numbers to be able to offer a greater variety of specialized classes in each rural locale, it was said to provide the "best of both worlds [in the classroom]--maturity of the adults and enthusiasm of youth."

Two additional areas for possible innovation were mentioned at the state level. The first was use of the residential school. One specific suggestion was an exploratory summer program. Removing high school students from their home community and school seemed a major drawback, even among some who suggested it.

The second area was scheduling, both at the local school and with area schools. It was pointed out that many rural schools follow very traditional scheduling patterns, whereas it should be easier to use flexible scheduling with small student bodies. With area schools, districts usually send students for a half day every day. Given problems of travel time and costs, two alternatives were suggested. Both would have students at the area school for a whole day. In one, seniors only would attend full time, taking both academic and vocational courses. In the other, students would go only every other day, for a full day of vocational courses. Besides saving cost and transportation time, the latter suggestion is said to have two other advantages: it is more like a realistic work day, and requires less preparation and clean-up time. While one community college was known to be considering the first alternative, no one was known to be using the second. (See also "Multi-Occupational Cooperative Education.")

Multi-Occupational Cooperative Education Vocational Programs

Both states visited were in the process of designing or experimenting with some form of multi-occupational cooperative education vocational programs, for small schools only. It was generally thought of as a solution for not having enough students to afford to offer a selection of separate approved vocational programs. The concept would have the individual students choose one vocational area (as opposed to industrial arts), but there would be a number of program areas available from which to choose, and not everyone had to make the same choice. The cooperative aspect refers to on-the-job experience in student's chosen vocational area. There were a number of problems discussed by state officials in implementing such a concept, some relating to the federal law.

Traditionally, cooperative programs were mostly limited to distributive education (DE). With this new concept, cooperative education was to be more of a process than a separate program, applicable to any vocation.

The most difficult issue in each state seemed to be who should coordinate or teach such a program. One state person felt that a new philosophy of cooperative education needed to be built into teacher training. Another suggested it should not be a DE teacher but could be a counselor who would teach general job skill activities while employers became instructors in their own areas. One suggested anyone with a vocational credential should be allowed to teach it. Another suggested someone part-time from the community could coordinate such a program.

Another likely problem in rural communities is finding a sufficient number of good training stations for job experience. Also, it was suggested that community businesses are reluctant to pay students for their work.

In terms of implementing "multi-co-op" programs within the current federal law, two problems were mentioned concerning record keeping: VEDS does not have a category for Multi-Occupational Cooperative, and accounting requires one to list cooperative expenditures as though it were a separate program rather than a process. It was also noted as a problem that the federal law and regulations require the state to prioritize funds for cooperative programs by unemployment and dropout rates.

Two state officials mentioned needing to sell this as a new idea, one noting the reluctance in small towns to "add another headache."

Rural Vocational Administrators

Several state administrators expressed concern about special problems confronted by small rural districts without vocational education directors. Closely related to previously reported responses for non-participation in federal programs, several local administrators shared this concern. One state tried to provide extra help to superintendents or principals who take on this role in addition to their many other functions but admitted that with high turnover in these positions, that it was a never-ending job.

The usual comments included that there was more paper work than money, and that with different rules, definitions and data requirements for the variety of federal education programs, superintendents with no or limited support staff just could not keep up to date and still do their other duties. One state administrator added, "They get so much paper on federal programs, they don't take time to read it. They are swamped--but they need money, need to be involved with federal funds."

Suggestions from both local and state administrators to ease the administrative burden of federal programs, including vocational, on small schools included: simpler forms; consistent definitions; a single data collection and reporting system; and better overall coordination among federal programs. Local administrators also asked for better information on federal programs from state officials and more consistency in the implementation of federal regulations by the state.

Problems and Suggestions--Local

During the site visits, superintendents were asked in general about their problems and suggestions for vocational education.

Under problems, several topics have already been discussed including: teachers, facilities, travel distance, and community feelings against area schools. Another problem mentioned was the state regulations concerning minimum number needed to start a program. One superintendent had wanted to start an electronics program for five to six students, but that fell under the state minimum number. He felt that if he had been allowed to start the program, it would attract other students and grow to or above the minimum standard. Two problems concerned finances. First, that funding fluctuated greatly with small changes in student population in small schools. Another was the possible state property tax cut in one of the states visited. Both created uncertainty and made planning difficult for small districts, therefore discouraging new expenditures for vocational education and possibly having to cut current ones.

Each superintendent was asked if he [they all were men] had any specific problems with the current federal vocational law and regulations. The only specific mentioned had to do with lack of resources for matching in one district. All other comments were of a general nature, including the greater proportionate paperwork burden on small districts mentioned previously. Other general comments included that "[Federal] laws pertain to large comprehensive school districts. We can't compete, representatives need to see the size of rural schools. . ." Another said that state officials cannot answer questions on federal programs in general and that there is no consistency in how guidelines are applied. He was also concerned about various data requirements and how data are used, giving one illustration: "I have to supply information on needy kids for free school lunches. That information is confidential, private, so I guess. Then the state come along and uses 'free lunch' data to set my numbers for Title I ESEA!"

Specific suggestions for improving vocational programs for rural schools were relatively few. They are paraphrased below:

> Give money to colleges to make certified teachers qualified to teach vocational education.
>
> Mobile units for carpentry, auto mechanics, etc. (See innovations.)
>
> Need combination vocational teachers who could teach in two vocational areas. Work experience requirements make it difficult.
>
> Send money with no strings attached.

Superintendents were also asked what they would do if they had more funds for vocational education. As noted earlier, some expressed interest in expanding their industrial arts offerings and adding vocational agriculture, if they could find state qualified teachers. Others said they would use it for materials and equipment because they did not have enough students to add another program, while others would add a program to diversify their offerings. (See also Rural Vocational Administrators.)

Vocational Education Philosophy

Under this topic are those general comments about the mission or purpose of vocational education. (For related topics, see Industrial Arts and Career Education.) They are all from superintendents. Several raised general questions concerning the suitability of the traditional vocational approach in the current societal context and for their small schools. One superintendent acted on his beliefs, withdrawing his district from federal and state vocational funding and redesigning his vocational program. General comments are presented first, followed by a description of this one district's redesigned program and its rationale.

One superintendent spoke specifically to the philosophy of vocational education and how he feels it should be changed:

> Society has changed--the philosophy of vocational education should change. It should be exploratory, not preparing students for entry level positions. Students should have a broad education. They can specialize through postsecondary opportunities or in a trade.

Another superintendent questioned the necessity of having vocational education as a separate program:

> I want to give more life skills than job skills. We can have a vocationally oriented program without vocational education certification. I don't see the necessity of of having a separate program.

In terms of who are the target youth served by vocational education, another superintendent questioned how effective vocational education was in his small high school:

> I think the top 20 percent [of high school students] can take care of themselves. The bottom 50 percent need help and guidance. They used to be the target for vocational education--no longer. Programs are getting more sophisticated and blue collar pay is good now. Some of the bottom 50 percent are getting left out. We do not have enough programs to offer them--not enough of a choice or fit to their needs.

Another superintendent in one of the smaller districts visited evaluated his overall program differently from the above person: "The sharp kids don't get the challenge--average and slower kids do better because of more individualized attention." (To support his statement, he added that at the elementary level, only one student in his district scored below grade level on standardized tests.)

The incident to be described below is one of non-receipt of federal/state vocational funds, but it was entered here because of the philosophical rationale given by the superintendent. This district was larger than the others visited but was chosen for a site visit by state department personnel because of its decisions to withdraw from federal and state funding. Actually, the funding lost was very minimal, only $4,000 out of a total vocational budget of $60,000. The superintendent did not feel the money involved was worth the restrictions imposed by the state. The district has modified its vocational program to better meet its concept of the missions of vocational education.

As the superintendent described the issues, the state plan required vocational programs to be offered in two hour periods, limiting the number of students served. His district wanted more students to be served. Under state requirements, one instructor can serve only 60 students at a cost of $16,000. By dropping out of a state approved program, they could double the student load.

There were other advantages also, as perceived by the district. They now offer vocational subjects in one hour periods and they individualize the content. They can now mix beginners and advanced students (not allowed in state approved programs) and allow flexible time for students to reach competencies. They also can now use IA teachers where previously they had to have vocational credentials.

They increased their offerings from 12 to 30 per semester. The courses are now more introductory, less than the state would consider a full program. Enrollment has increased because more students are willing to take shorter courses than to make a long-term commitment. Almost 40 percent of the students take vocational subjects. Students are encouraged to take a variety of subjects, five or six skills, rather than having to declare commitment to one vocation. Industrial arts is now more an arts and craft program for junior high, and "vocational experience" is available for grades 10 to 12.

Philosophically, the program as redesigned does not aim to produce apprentice level workers but an introduction to various skills and trades. A large proportion of high school graduates go on to further education or training. The superintendent does not feel the new program has hurt the job market entry possibilities for those who do not go on for postsecondary experiences. (He added that this is in a non-union state.)

When asked under what conditions his district would be willing to once again apply for federal and state vocational funds, he said that state guidelines would have to be modified and the amount would have to be "enough."

Clearly, the above example was an exception but seemed a good example of how philosophy impacts program. In this case, it was state rather than federal regulations which were at issue.

The Vocational Education Act and Regulations

Almost all comments concerning this law in general or specific parts as related to rural programs came from state vocational administrators. Specific concerns are mentioned first, followed by more general comments.

Federal formula: It was called "absurd" by one state official. He explained his opinion, stating that relative ability to pay means nothing in states with a foundation formula, as all districts are "equalized" by law.* He said the federal formula ignores state differences, as well as assuming urban and rural districts are the same.

Matching: One local administrator visited mentioned matching money as a problem, that with declining enrollments and state tax initiatives, any amount would be a problem. At the state level, it was suggested that it would be helpful to match in terms of a statewide rather than a local percentage. Although not specifically noted as a rural problem, it was added that if a local was on a tight budget, it would not be able to use all of the federal funds for which it was eligible. [The federal law allows the states the option of setting the proportion of state and local funds necessary to meet the match requirement. The local proportion can be set at zero.]

Set-asides: This topic drew more comment at the state level than any other specific area. Related specifically to rural areas, some questioned whether set-asides were necessary for small schools. One administrator noted that many small schools were not using them. One said rural schools had small classes anyway, and those districts felt that they did not need extra money to handle special children. One vocational administrator, formerly a vocational teacher, seemed almost insulted:

> . . . small schools have accommodated special kids in Voc. Ed.--previously we didn't identify them, we taught them. Now it is said that because we didn't identify them, we didn't serve them--not always true.

Another added, "I think all those [set-aside] areas are important, but that's all we are addressing. . . legislation is written to accommodate big cities/big states and their needs."

Federal definitions: The definition of disadvantaged, defined as not being able to progress in a regular program, was questioned as not necessarily suitable for rural schools. Also, it was noted that the definitions of disadvantaged and handicapped were different for vocational than other federal programs. It was said that rural districts often do not have the numbers to participate under the current law.

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*School finance experts have called into question whether state equalization schemes are effective in neutralizing differences in local fiscal capacities. (Reforming School Finance, Reischauer and Hartman, The Brookings Institution, 1973.)

Options: One state administrator complained about what he called the law's "optional laundry list." He noted that the federal government says they are options but then "seems to have the expectation that you would do all the options." (Industrial arts was given as an example.) Another added, "Pressure groups make options less than optional."

General Comments: Although questions about the Act were asked specific to rural vocational education, most of the general comments received expressed overall concerns. Sampling of general comments follow:

> Regulations tht accompany the law have a large impact on a small rural state--need a full time person to deal with implementation. If we could afford it, I would advise our state not to accept [federal vocational funds].
>
> Too many demands placed upon vocational education, OCR, sex equity, etc.--even more impact on small districts because they don't have administrators to deal with all federal programs, laws, and special requirements.
>
> Feds aren't really in a position to identify national needs because they are really a combination of state needs and we are closer to those. . . State and local [officials] both would like to have autonomy.
>
> We [vocational education] are overburdened. . . the federal government has not hit the universities or regular school programs as hard. . . using voc. ed. to handle social ills of this world. . . the job of voc. ed. is to train people to go to work. . . we are neglecting some people to do this. . . emphasis on social ills has sidetracked us from major problems, for example, youth unemployment. . .
>
> Basic law (1976) is good--regulations and rules are the problem. . . now spend a lot of our time keeping districts out of trouble.
>
> Vocational education is an economic-based program caught up in social legislation.

Federal Funds

Several comments from state officials related to the amount of federal controls relative to funds contributed (in both states visited, the state contributed more than enough to match the amount of federal money):

> Federal funds are the tail that wags the dog. Don't tell us how to use our state and local money to fund your [federal] programs.
>
> . . . so restrictive, stacks of regulations don't get to the real needs of our own states--it's not as though our state wasn't assuming responsibility.

In relation to other federal training programs, one administrator noted: "CETA can pay 100 percent, where vocational education pays only about 25 percent [of a local program]."

When asked what they might do with additional funds, comments included setting up a discretionary fund for opportunities not readily available under federal and state regulations. Another suggestion was to fund more sponsored programs in new and emerging areas (seed money) where school districts cannot afford the risks of uncertainty (example: alcohol fuels). Another would concentrate, as they do currently, on maintaining and expanding current and successful programs. There also was mention, as noted earlier, of funding industrial arts and exploratory type programs. Others mentioned: area school construction, summer and residential programs, and teachers shared among districts.

When asked what would happen if federal funds were to decrease or disappear entirely, one state administrator said: "It wouldn't look much different."

State Planning

The federally required state five year plan was considered worthwhile ("it makes us think"), but unrealistic ("can't do a good job, projections aren't good enough"). Another problem cited with the five year plan was that it made the program inflexible. As a state official explained: "It is revised annually but commitments are hard to change. . . We have trouble funding immediate needs."

Another aspect of state planning discussed had to do with attracting and planning for new industry. In one state visited, officials did not feel their vocational program had the flexibility to do this, nor that the state legislature wanted to give it, and further, were not sure that the citizens were "that much interested" in attracting industry. One administrator added that statewide needs do not always meet the teachers who are available and/or tenured.

In the other state visited, the vocational education unit was far more involved in attracting industry and preparing students for work in new industries (examples: mining and energy), although this was done mostly at the postsecondary level because it was said to be more flexible and could train faster than secondary. State vocational planners help both secondary and postsecondary administrators to develop programs to meet statewide needs as well as try to encourage schools to drop non-essential programs. When asked how the promotion of new industrial programs applied to rural areas and their needs, one planner said they "didn't really consider local needs that much with today's mobility"--and that they considered "local" industry input to be statewide when considering developing and supporting new vocational programs.

Research and Related Activities

(Covered under this topic will be state level comments on research, exemplary programs, and evaluation.)

The two states visited differed in their vocational research operation, as the smaller state department did not have a full-time research coordinator and was less active in this area. When asked about research related to rural schools, the larger state had recently funded a study on accessibility and success of regional vocational centers (now in progress). The other had none.

Both states had set aside some of the exemplary funds for small or rural schools. In the smaller state, an announcement had been sent out but no rural schools applied. The other state has had several exemplary programs in rural districts and described one where community persons were being trained to be part-time distributive education coordinators.

The research coordinator was "satisfied" with the current program improvement section: "I think we have the flexibility to deliver under program improvement; the state has flexibility to research a problem, pilot test, develop curriculum, and deliver teacher inservice.

Evaluation was an active process in both states. In one state, community review committees were required, one for each program, except in the small districts with less than four programs (almost all the rural ones) where districts can choose for a state person as reviewer instead of committees. Most choose the state person.

The other state evaluation system ranks every vocational program, from high to low, on given criteria. The criteria include cost efficiency and effectiveness (completion, placement, sex balance, and target groups). The bottom 20 percent are subject to immediate evaluation. If a program is in the bottom group "due to circumstances beyond control" (for example, cost effectiveness), funding will not be cut. The results tend to show problems in small schools, where low enrollments require high per pupil costs. Of interest was the fact that there were a couple of rural programs which ranked very high. The state person in charge of the evaluation, a new system, suggested it would be a good research project to compare those rural programs ranking very high versus those ranking very low.

IV. CONCLUSION

Summary of Concerns

This study of vocational education in rural secondary schools focused on districts that do not receive federal Vocational Education Act funds. Even though the numbers of students in rural districts without federal (or state) vocational funds seem to be relatively small from the sample surveyed, there are many more rural districts with minimal programs which are likely to share the concerns discussed in this report.

From talks on site with state level vocational administrators and rural school superintendents, a mix of topics arose which are specific to vocational education in rural schools, as well as including more general problems of rural education and topics concerning vocational education for all secondary schools. The study was very limited in resources and the issues discussed are done so with caution.

State vocational administrators and district superintendents emphasized different areas of concern. Problems with vocational education as cited by superintendents did not all stem from the federal legislation. As noted in the report, the most frequent concern voiced was for finding and retaining qualified teachers. This was seen as a general problem for rural high schools, which have additional difficulties in staffing for vocational programs, in that states require additional credentials beyond certification for teachers in state approved vocational programs. Industry also competes for persons with these same vocational skills and can offer higher salaries.

Superintendents also related their districts non-participation in state approved vocational programs to the small numbers of students involved, the small amounts of funds available, and the "paper-work burden" of participating in vocational and other federal programs. Complaints included having to fill out the same forms and comply with the same data requirements as large districts, as well as the difficulty of keeping up with changes in the laws and regulations. Superintendents sometimes felt state administrators did not supply sufficient information on federal regulations and were not consistent in applying them. In some cases, superintendents were unsure whether a regulation with which they were concerned was state or federal, and the specifics also were often confused.

Another reason for district non-participation in state approved vocational programs was the desire to have students participate in the more exploratory-type program of industrial arts. This was both for the convenience of small numbers, making specialized courses less practical, and for philosophical reasons. Some of the philosophical reasons were rural-based, i.e., that students can be better prepared to work in rural communities with a broad base of skills. Others were more general, that students should not make career commitments in their early teens but should try out many skill areas.

The study addressed two other possible routes for rural high school students to participate (other than at their local high school), through area vocational schools or by contracting with other districts. Two distinct reasons for not doing this emerged. The first was practical, because of travel distances and travel costs, as well as tuition costs. The small numbers of students to be sent, as well as the maintenance of an adequate staff for those remaining, also was a practical consideration. The second reason was political and included bad feeling carried over from consolidation efforts as well as community fears of losing the local high school.

At the state level, there were more concerns expressed specific to the Vocational Education Act and its regulations. The state vocational administrators interviewed generally felt the amount of federal control exercised over the state's vocational education program was disproportionately high in relation to the amount of money the federal government contributed, and overly restrictive as compared with federal regulation of other educational programs. "The tail that wags the dog" was one administrator's image. The 1976 amendments and their accompanying regulations, especially the "set-asides," were severely criticized as putting an unfair burden on the vocational program and distracting it from its real purpose. The feeling was that vocational education had been singled out to cure contemporary social ills as opposed to its true mission of preparing people for work.

There was minimal attention evidenced at the state level of a need to consider rural schools differently. Although there was an understanding at the state level of the rural desire for generalized skill training through industrial arts, and also an awareness of the need for career education, such programs were not considered (in the states visited) as the responsibility of vocational education. Such programs would be positively considered only if additional funds, specified for small schools, were provided. Only one new vocational program, multi-occupational cooperative education, was evidence of the provision of special program guidelines for rural schools. Other innovative practices which seemed to have potential for rural schools were the mixing of secondary and postsecondary students at area schools (thus increasing the possible program offerings in areas of limited student numbers), and contracting with community colleges to provide vocational programs at the local school (thus reducing the administrative burden, travel costs, and travel time).

Some topics were noticeable by the lack of comment they received in the rural districts visited. Community involvement and promotion of sex equity were two of these. Little community involvement in vocational programs was reported in the schools visited. Traditional sex roles were evidenced by enrollment patterns in most vocational courses.

Policy Implications for Rural Vocational Programs

The concerns voiced in this study are to be looked at by NIE in conjunction with the results of the other NIE contracted studies of vocational education in rural areas. Also, at the time of writing this report, data from the UCB study on funds distribution was not available for review. The following policy implications from this study are premature, in the sense that the overall analysis process is incomplete. Therefore, these implications could be considered more as questions needing further consideration.

Should federal and/or state vocational education authorities provide special consideration for rural schools desiring vocational programs? If the answer to this question is positive, then the concerns voiced in this study point to several possibilities for intervention.

The type of vocational program most suitable for small rural schools needs to be considered before teacher problems can be meaningfully addressed. For example, should small schools be allowed, encouraged, or even required to offer an industrial arts or multi-skill exploratory type programs? If yes, then the quality of such programs also would need to be addressed from both the need to update and further develop curriculum and provide related teacher preservice and inservice training.

Once such program decisions are made, then the problems of recruiting and retaining teachers, and what skills they need to be "qualified," can be addressed. What should be the standards for teachers who teach in these redesigned rural vocational programs? Is specialized training and/or work experience necessary? Should there be a special incentives program to attract teachers to vocational programs in rural areas? If teacher training programs need to be modified or improved, should this begin on an inservice or preservice basis?

Policy decisions concerning vocational program content and teacher standards currently are more state controlled than federal. Should the federal government devise a rural vocational policy and use its funds to influence state administration? What should be the state and local role in setting policy? Should the federal influence extend beyond that part of the program which it supports?

In viewing vocational programs in the larger educational context, three additional policy areas were implied in conversations with local superintendents. First is the question of whether vocational education should become more integrated into the regular education program and more available to all students. Although this question could be applied to all schools, it has more practical implications for rural schools with small numbers of students and teachers. In these schools, the feasibility of conducting one or more separate and specialized vocational programs is less.

The second area relates to the relative isolation of students in rural communities. Although not specifically a vocational concern, vocational training could be a basis for providing student learning experiences outside the local community. These experiences could be skill learning (classroom) or practice (on-the-job), or both, and could take place during the school year, regularly, on an intensive basis, or during the summer. Students attending postsecondary institutions on a part-time basis and the possibility of residential programs already have been mentioned. Another option might be urban/rural student exchanges which would allow for mutual sharing of lifestyles as well as skill learning.

The third area, community involvement, again is not one specific to vocational programs but an overall rural education concern which could be addressed through new vocational thrusts. There was little evidence in the communities visited of community input into the vocational programs nor support from the school for community development. Whether this is a general condition and the reasons for it deserve further attention.

Some Final Thoughts

The purpose of this brief study was to document state and local concerns about the Vocational Education Act as it applies to secondary schools. The concerns found were many, but involve not only the federal law, but also its interaction with state programs and how they are administered, plus general concerns of rural educators and about vocational education.

The topics discussed point to three major issues beyond the specifics of the Vocational Education Act. The first, the philosophy of vocational education, was openly discussed during the site visits and has been described previously in this report. The second concerns the future of small rural high schools. This issue was touched on only indirectly at state and local levels. The third involves federal control, its scope, and its implementation.

Before one can determine the specific needs of vocational education in rural schools (or in any school), it is necessary to agree on the intent of the program, its target audience, and the criteria by which it will be judged. There seems to be disagreement among some rural superintendents with the traditional philosophy of vocational education as providing intensive training in a chosen skill area at the secondary level. The preference for industrial arts and multi-occupational programs was an indicator of the concern.

Secondly, there appeared to be an ambivalence at the state level about providing special support for vocational programs in small schools, if this special support would prolong the life of a high school whose overall existence was considered questionable. In this sense, questions concerning vocational services are part of a larger question about the future of small rural high schools in general. Should state and federal policies be neutral, supportive, or detrimental to small rural high schools?

The third issue of federal control is not particular to vocational education and is so familiar it need not be discussed here. Vocational education presents a case of federal regulations influencing state and local programs through provision of partial funding. Whether this should be done, and how efficient and effective it is in programmatic terms, is at issue. Specific to rural schools, the impact of federal regulations and the administrative processes required are among the factors which discourage participation in vocational programs.*

Neither the question of vocational education philosophy, nor the future of small rural high schools, nor the issue of federal control have simple answers. They are questions of values and, in the opinion of the investigator, are basic to almost all of the concerns discussed in this report.

Further, they are questions which need to be addressed at all levels--federal, state, and local--if there is a sincere desire to act constructively on the problems of providing vocational education in rural communities.

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*The author has been made aware of one state which is seriously considering not accepting any VEA funds because of increased state and local reporting requirements.

Appendix

Site Visit Information

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May-June, 1980

Study Title: NON-RECEIPT OF FEDERAL VOCATIONAL EDUCATION FUNDS AND OTHER VOCATIONAL-EDUCATION RELATED ISSUES IN RURAL/SPARSELY SETTLED AREAS

This small study is funded by a National Institute of Education grant to me, to be carried out in conjunction with the University of California Berkeley Project on National Vocational Education Resources. Its emphasis is on those districts which do not receive federal vocational education funds.

It is important to emphasize that this is a small study, intended primarily to document issues in need of further study. It is one of several small rural studies in the much larger vocational education study being done by NIE under Congressional mandate.

The following questions/issues are among the topics that have arisen from my review reports and discussions at federal and state levels. They are listed here to suggest areas you might like to tell me about but are certainly not exhaustive nor meant to limit the scope of our discussion.

For Districts Who Do Not Receive Federal Vocational Education Funds:

For what reasons are you not eligible or do you choose not to apply?

Are your students served by regional or other districts' programs?

Do you have your own local courses or program of vocational education?

What do you offer and how might it differ from other programs in the state?

What would you consider the minimum amount of federal money that would be useful for vocational education in your district and what might you do with the funds?

What do you see as the major needs or issues?

For Districts Who Do Recieve Federal Vocational Education Funds:

If you were to lose your federal vocational education funds, what would happen to your district's program?

If you were to receive twice the amount of federal funds that you now receive, what might you do with it?

For All Rural Districts and State Officials:

In relation to rural districts, do you have concerns or suggestions about the Vocational Education: law, regulations, administration, definitions, and/or evaluation requirements?

What do you see as the greatest difficulties in providing Vocational Education in small isolated schools? Program needs?

Do you know of any especially effective or innovative Vocational Education program in rural schools, either by program content or delivery? Any research studies?

APPENDIX 6

"THEY'D NEVER HIRE A GIRL"

Vocational Education in Rural Secondary Schools

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The Vocational Education Study
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"THEY'D NEVER HIRE A GIRL"

Vocational Education in Rural Secondary Schools

> Those who have a home which they can make happy, will not sigh for contact with the outer world, to be permitted to wrestle and contend among its fierce trials and fiercer spirits that struggle there for daily bread; . . . or reject the gentle ties of wife, mother, sister, to study some learned profession, and rush into those haunts and paths already too crowded with the sterner sex. Such must be the lot, nevertheless, of many women, whom necessitous circumstances have forced into an unnatural position.
>
> -- New Cyclopedia of Domestic Economy, 1892

> "They'd never hire a girl. Most girls could not cope with getting under a car and getting cold in the winter. They wouldn't like it that most garages don't have adequate toilet facilities. . . . We need to give girls life skills. What this school needs for girls is a program in basic household skills -- basic cooking, so they don't serve so many TV dinners. There's a lot of that now, since so many wives work."
>
> -- Rural High School Principal, Southern New Hampshire, 1980

Much has changed in rural America in the last 100 years. But the paradoxes that dominate the lives of rural women have altered little. Rural women have always worked harder than their urban sisters; from nineteenth century women's magazines to twentieth century sociological studies, the report has consistently been of relentless labor in the house and in the fields. Simultaneously, however, the notion has persisted that rural women are too "gentle," too delicate, to take on productive work outside the home. Even today, there is a strong sense in many rural communities that the good woman finds her fulfillment as a wife and mother, and that only "necessitous circumstances" should propel her into the labor market.

Parts of this conception are breaking down in the face of changing rural life styles and a changing American society. Farming is no longer the common rural enterprise, and the need for women to work as unpaid farm laborers has therefore diminished. Mass media and the interstate highway system have whetted the appetites of rural people for consumer goods and urban amenities, appetites which, in many cases, can only be fulfilled by a second income. Rural women, to varying extents, have come to share with their urban counterparts a desire for the kind of independence and self-actualization which comes with a career outside the home. And the general pressures of inflation, increasing energy costs and modern family instability have forced many rural women into the labor market, whether they want to be there or not.

But if parts of the old conception of a "woman's place" have broken down, other parts appear to remain intact. "Necessitous circumstances" have come to be more broadly defined, and a wider range of women now feel that they can or must go out to work among the "fiercer spirits" of the opposite sex. But, for many rural women, "contact with the outer world" has compounded the paradox, not resolved it. The majority of non-farm rural women are now adding wage-earning labor to their home responsibilities. They are permitted by a liberalized society to keep house, tend the garden, raise the children, help their husbands, and bring in a portion of the family income, besides. But they are still not supposed to compete with men for jobs with higher wages or more autonomy, nor are they encouraged to expect their husbands to share in the household tasks that a wage-earning wife leaves behind.

This situation presents a clear challenge to vocational education program planners. Since rural women are entering the labor market in ever-increasing numbers, they will need training which will help them get and keep the jobs they want. But this is not a simple enterprise. A good vocational program for young rural women needs to cope with a variety of competing forces: the pressure of traditional community value structures; the polarization of rural labor markets; the concerns of rural women about their own capacities. To provide occupational training for country-bred women without considering the multiple demands which impinge upon them is to render a disservice. Out-of-context programs will only provide their recipients with an illusion of access to meaningful and productive work. Rural women deserve more than illusions.

This paper is intended to provide a context for thinking about appropriate vocational programs for rural women. It considers the present status of rural women, at home and in the labor market; examines typical vocational education programs intended to meet their needs; and proposes ways in which secondary schools could provide more appropriate occupational preparation for their female students.

The conclusions in this paper are drawn from a woefully small data base. Few fields are less thoroughly researched than this one. The literature on rural women is meager, as are the studies of rural vocational education. Even where rural vocational education studies exist, they deal almost exclusively with men, treating women only tangentially, as a not particularly interesting sideline. Statistics have been compiled -- by the states and by major research enterprises like the National Longitudinal Study -- on program participation and outcomes for rural girls, but they have not yet been analyzed or interpreted. An extensive search failed to unearth a single specific study of vocational education programs for rural women.

This discussion is based on a review of the sparse existing research, augmented by data from two sources: the 1976-78 "Profile of Occupational Interests" (POI) study, a multi-regional study of rural high school students in five parts of the U.S.; and some informal interviews conducted early in 1980, which tapped the views of administrators, counselors, teachers and students at eight secondary schools in Vermont and New Hampshire. For the latter data-gathering exercise, schools were chosen to represent a variety of types within the geographical constraints imposed by limitations in time and money. (See Appendix I for a more complete description.) They covered a range of sizes, levels of commitment to vocational programs, local availability of jobs for vocational graduates, and degrees of metropolitan influence on community life. Perceptions drawn from these data are suggestive rather than conclusive, but they indicate some possible trends and some promising directions for further research.

* * *

"The boys call me Annabelle Hatchet," she announces with a proud grin, "because I was cuttin' down trees faster than they were. We make the guys in here look sick!" Janet is in the first year of a two-year Vocational Agriculture program at her regional high school in Vermont. She is one of five girls in a class of twelve. Her teacher encourages girls to do the same work in forestry, logging, sugaring, horticulture, dairy production and farm management units that boys do, and is delighted with Janet's performance. While he concedes that "some employers might be prejudiced," he urges girls to take pride in their achievements; he says, "I tell a girl: you've got it -- you sell it!" He, too, notes that Janet's skill with an ax is superior to some of the male students'; in fact, her swing has become somewhat legendary, and even the principal talks about it.

Janet is scornful of her classmates who are "just in for credit." According to her, two of the girls and "some guys" fit that description; she speaks with pity of the girl who "even lives on a farm and couldn't tell the parts of a chicken on our test last week." Janet herself takes such tests seriously. She signed up for Vo-Ag because she helps care for livestock on her father's small farm at home and she "wanted to learn about diseases. Say you got a sick calf; you learn what to do for it . . . . If you got trouble at home with an animal, this'll help you figure it out." She is particularly interested in horses; she has broken and trained several, and plans to earn money by giving trail rides this summer.

Janet's two best girlfriends also enrolled in Vo-Ag because they like caring for animals; one would like to have a pet shop someday, and the other dreams of living "on a ranch out West." But Janet's plans are more specific: she knows she wants to farm in Vermont. Her father, grandfather, and great-grandfather have all been farmers, and she is the only one of eight children in the family who wants to continue. She has been paying particular attention to the coursework in farm management, "keeping accounts and all that"; she expects this to be useful in her future because her father "thinks he knows it all already." And though her father has given her a few acres, she doesn't really want to stay around his place. "I want to get my own place," she says firmly, "and build it up."

Janet's boyfriend has other ideas. He thinks she should settle down and raise a family when she graduates next year; then he can support them working as a trucker. While Janet would like to have kids, especially because "they would help with chores," she wants the farm first. "I figure," she says, "if girls settle down and raise a family, they won't do what they want to do." She doesn't want to be "tied down to kids -- kids take a lot of money." She also knows that children would be a time-consuming responsibility; she speaks with horror of the way she's seen babysitters treat kids, and says she would never leave any of her own with hired sitters. She's not so *sure she could care for kids and run her farm while her man is out driving a truck, but she sees a solution. "I think," she says hopefully, "that he'll come round to farming. I think I can get him round to farming."*

* * *

The Lives of Rural Women: Dealing with Dilemmas

It is difficult and dangerous to make broad generalizations about any group of women -- and about rural women, perhaps, most of all. There are more than twenty-five million of them, and they are extremely diverse, representing every race, ethnic group, social class, and economic situation. They are made more diverse than urban women by the geographical insularity which has maintained unique rural sub-cultures in an increasingly homogeneous metropolitan nation. The POI research found that regional differences among women were as significant as differences among social classes, and even between sexes. This kind of variation makes global assessments suspect. Nevertheless, as a group, rural women do have some common tendencies, recurrent qualities with which the educational policy planner must grapple.

There are implicit contradictions in the lives and attitudes of most groups of women, but rural women seem to have carried these contradictions to an extreme. The myth of womanly delicacy and the fact of female competence are both embedded in rural culture, and both emerge as factors when women plan their lives. For example: rural women are very family-oriented, and tend to be quite traditional in their view of the appropriate roles of wives and mothers (Flora and Johnson, 1978; Dunne, et al., 1978). They perceive themselves as "helpmates" to their husbands, attentive mothers to their children, good neighbors who help friends and relatives in difficult times (Dunne, 1979). They are not particularly interested in legislated equality; Larson's (1978) review of the literature on rural attitudes found that more than half of the nation's rural women feel that ERA is either unnecessary or inappropriate.

At the same time, however, rural women are very career-oriented. They have high educational aspirations and, generally, high achievement levels: the average educational level of the white rural woman is equal to that of her urban sister and her male counterpart, while minority rural women generally acquire more schooling than minority men (Fratoe, 1979). Further, the young women tend to plan extended work lives and often aspire to careers which would require extended commitment, such as veterinary medicine, accounting, and business management (Dunne, et al., 1978).

This would not be paradoxical if two different age groups were under consideration here -- if, for example, older women saw themselves as traditional homemakers, while younger women were eager for more "liberated" lives. But this does not seem to be the case. The census statistics indicate that increasing numbers of rural women in all age groups (including the young mothers in the 20-34 category) are moving into the labor force in record numbers (O'Leary, 1979). And a group of women, recently convened by Lyndon State College in the remote "Northeast Kingdom" region of Vermont, called the problem of re-entry homemakers one of the most pressing issues facing the female population of that area.

Further, the younger rural women seem very nearly as traditional in their orientation as their mothers and aunts. The POI research found that high school girls expected to work, but that they also expected to run their households single-handed (Dunne, 1979). In fact, they expected less help from their husbands than their male peers declared themselves ready to provide. Our interviews confirmed the survey findings. Nearly every girl interviewed planned to work and to manage a home with little or no help. "The man would feel awkward," one girl explained. "It's the way you're brought up. Girls do dishes, boys do wood and garbage." Some of these young women expressed some ambivalence about the traditional division of roles, but most expected that custom would triumph. As one girl put it, "A husband should help, but I don't think mine will. It depends on what he's like. He might be lazy, or tired from work. I will too, I guess, but it's got to be done. Mostly, it'll be me . . . he probably won't." This young woman has no particular husband in mind; she is reflecting her expectations of men as a general group.

Thus, rural women of all ages seem to envision themselves as both wage-earners and homemakers, with little expressed consideration of what this combination is likely to cost them. The Lyndon State College conference indicated that older women tend to be less likely to construct a fantasy in which they put up twelve quarts of tomatoes in the morning and perform brain surgery in the afternoon, but they seem to have equally little sense that it is difficult to simultaneously be a full-time wage earner and a full-time homemaker, especially in the rural context, where services are scarce and most human endeavors require extended travel.

The homemaker/worker issue is not the only dilemma with which rural women must deal. Their actual position in the labor market confronts them with another paradox. When young rural women talk about working, they speak of jobs as a source of satisfaction -- according to the POI research, to a far higher degree than young men (Dunne, et al., 1978). There is no apparent reason for this attitude. In spite of their high educational attainments, in spite of their high aspirations, rural women are concentrated in the least satisfying jobs available to humankind, in terms of stimulation, responsibility, or income. O'Leary's (1979) study found that fully 25% of rural women are employed as operatives in non-durable manufacturing -- jobs in processing plants of various kinds which represent some of life's most tedious and unpleasant occupations. Further, these unattractive jobs are not redeemed either by high pay or the prospect of promotion. According to O'Leary (1979), the mean earnings of full-time rural female workers in 1976 was only $6,590, half that of their male counterparts and $1,000 less than their urban sisters. And women are likely to end their work lives where they began them: at the bottom of the career ladder. As one Business teacher in a northern New Hampshire town said, "All jobs for women in this area are minimum wage, no matter what their education or experience. There is little chance for advancement. Women bank tellers have been there 10 and 20 years without a promotion. A man will work there less than three years and get moved up."

The young rural woman, therefore, seems to be boxed in before she makes her first move into the labor market. She has learned to want a productive career; she has learned to want to be a fine, supportive, responsible wife and mother. She has learned to look for satisfying work for part of her identity; she has learned that women cannot hold those kinds of jobs. In this context, it is not surprising that rural girls have diffuse, sometimes contradictory notions about what they will do with their lives. It is only surprising that they manage to plan at all.

The Status of Rural Women in the Labor Market: Reasons and Rationalizations

The unenviable position of women in the rural labor market has a number of sources. First, the rural economic structure tends to be relatively simple and undiversified (Cosby and McDermott, 1978). In addition to farming -- traditionally a male preserve -- most rural communities offer one or two primary employers. Characteristically, these major employment opportunities are highly sex-stereotyped; mining, fishing, logging, and heavy machine industries hire men, while textile factories, food packing plants, and plastics companies hire women. When the local industry hires both males and females, the jobs tend to be segregated within the organization (Teal, 1980). And, almost invariably, the "women's jobs" offer less pay, fewer chances for promotion, and less autonomy than do the jobs held by men. This means that, in most rural communities, women have either little chance for employment, or abundant, low-level opportunities. In our interviews, we asked, "Where do the women around here work?" and the responses were consistently dismal: "Part-time, in menial jobs"; "At the rubber plant"; "At the plastics factory." There were few equally consistent answers for men, even though their labor market is limited by the constraints of the rural economy as well.

Some of the sex-stereotyping of occupations comes from the nature of rural work. Many of the stereotyped "men's jobs" require a great deal of physical strength which women either lack, or are presumed to lack. One rural principal pointed out in an interview that "a twenty-five year old man is going to be able to lift more than a twenty-five year old woman, on the average," and that this difference is significant in a logging camp. The emphasis on strength in several rural occupations encourages sex-stereotyping, and discourages women from considering male stereotyped occupations which women might find readily manageable.

Although some rural jobs have qualities that encourage sex-stereotyping, most occupational polarization stems from community and employer attitudes (as it does in metropolitan areas), rather than from anything inherent in the job itself. Even the most optimistic of vocational teachers see real problems in the marketplace for the unconventionally trained. One Vocational Agriculture teacher, who takes a very positive approach towards training and placing women in agriculture-related fields, still feels he has to hedge his hopeful assertions: "If the employer is somewhat up-to-date, he'll hire a girl. A girl has as much chance as a boy to be hired today. But . . . the employer might be prejudicial. He might like a boy in mechanics -- figures he's had a car, fooled around with it -- where he might hire a girl in horticulture or something." Most of the teachers, administrators, and students interviewed were far more pessimistic. Many agreed with the young woman who said, "No girl would be hired before a guy, no matter with the situation. My father owns a garage and he would never hire a girl, even if she was the best in the class."

Employment -- in traditional or untraditional occupations -- does not end the working rural women's problems. Access to transportation, to child care, to stores and services is more difficult for rural women than for their urban counterparts. The lack of adequate day care is particularly acute in some rural areas. In central Vermont, one teacher told us, many mothers "go on welfare instead of working because they don't want to leave their kids alone," but can't find a reliable person to look after them. Traditionally, rural women compensated for scarce services and poor transportation through a mutual support network (Flora and Johnson, 1978). But the old custom of "neighboring" has begun to break down, as its membership moves into the workforce. A young mother can't take her neighbor's kids after school if she works the 3 to 11 shift at the local nursing home; Mom can't cook for her daughter's husband and children if she waits on table at the resort every evening. Thus, many rural women are forced to choose between poverty and family neglect -- a painful decision for any person, and a heartrending choice for the family-oriented country woman.

Finally, the external problems posed by the nature of the rural labor market and the scarcity of services in the country are exacerbated by the internal problems of rural women's attitudes towards their own futures. Although teachers and counselors feel, as one put it, that "attitudes are changing -- there's more career orientation today," marriage remains a priority for young women, and traditional rural values compel the marriage-oriented young woman to be ready to drop career plans at any point. Since many do not know who or when they will marry, they tend to perceive uncertain futures, dominated by the random whims of fate. As a result, one vocational coordinator says, high school girls talk about careers, but actually "think in terms of a job," which is sporadic and limited. "Boys think in terms of extended careers." Even young women with substantial ambitions see marriage as an impediment to success over which they have no control. One high school junior, who says that she wants to be a social worker, was asked what factors could stand between her and her goal. "Getting married," she replied, promptly. "If I get married first, I can't go on to school." This tentative attitude towards the future may be one reason for the low aspirations some guidance counselors perceived among their female students. There is little point in investing time, money, and emotional commitment in training which might have to be abandoned at any moment. It makes more sense, as one assistant principal notes, to "latch on and get married," while in high school. Then, at least, a girl can feel (however temporarily) that something about her future is determined.

* * *

"I love this stuff!" cries Jill, waving her hands at the bustling children of the Quantity Foods Program during lunchtime. "I love all of it -- learning about cooking, serving, the management. It's really, really interesting." Quantity Foods is a two-year program, but Jill enrolled in her senior year. "I wish I'd gotten into this earlier," she says. "I wish I'd started before. I would have loved to go on."

Now, however, she feels it is too late; she is five months pregnant. "Now that I'm married, with my baby coming -- well, I'll stay home after the baby comes." She thinks she might work sometime, maybe after her child goes to school, but she has no definite plans. She doesn't think she is qualified to do much in food trades, in spite of her enthusiasm for her current course. Two years ago, she was enrolled in the Office Occupations program, but dropped out of school and has only returned to finish this year.

As evidence of the real potential of the Quantity Foods program, Jill points to two of her classmates, two young men who plan to start their own restaurants after further training at Culinary Arts institutes. "They're really going to do well," she says. "I mean, I love this, but I didn't start soon enough. But at least I'll be able to cook for my family."

* * *

Vocational Programs in Rural High Schools: The Basics

Federally-funded vocational education for rural youth began in 1917, when the Smith-Hughes Act authorized the expenditure of $7.2-million for occupational preparation. In the countryside, these funds were focused on two programs: vocational agriculture, which got fully half the allocated funds; and home economics, whose funding was split with the more urban-oriented industrial arts programs. Since 1917, five more acts, each with subsequent amendments, have succeeded the Smith-Hughes legislation. But the primacy of VoAg and Home Ec programs in rural secondary schools has never been challenged.

Today, when only 11 percent of rural residents are engaged in farming and when 49 percent of rural women are in the labor market, this emphasis seems odd. But traditions are strong in rural schools and the communities that support them, and several high school teachers and vocational directors voiced sentiments similar to those of the New Hampshire principal who said, "The community is fond of the Aggie program, refuses to change it. We've been FFA champs 11 times in 13 years."

Furthermore, both Agriculture programs and Consumer and Homemaking Education courses have been modified over the last ten years, in response both to the constraints of the job market and of Title IX. Some of these changes are access-oriented -- one school, for example, revised a rule that barred girls from the Future Farmers of America club; another renamed the cooking classes "Culinary Arts" in a successful effort to recruit young men. Other modifications were more engaged with content. In some schools, the Home Economics programs (as they are still called in most rural schools) have devised classes to prepare young people for restaurant or institutional cooking occupations. Agriculture programs have broadened their focus to the point where the national FFA can claim that since one-third of the jobs in America are agriculture-related, Agriculture is the natural omnibus vocational program. Whether or not that claim seems plausible, it is clear that many VoAg programs are broader than they once were. In addition to the dairying and forestry programs characteristic of northern New England agriculture programs, schools selected for this study offered, under the general rubric of Vocational Agriculture, everything from greenhouse management to small business practices. As a result, in part, of these changes, there are places where the high sex-stereotyping typical of these programs has broken down. There are some female students in most VoAg programs, and some boys in particular Home Ec classes (such as Culinary Arts). Nevertheless, the tendency towards single-sex courses persists. Since, in many schools, these two programs are the dominant form of occupational preparation, they establish a model for occupational sex-stereotyping which mirrors and reinforces the stereotyping tendencies of the community.

If the Smith-Hughes Act laid the foundation for sex-stereotyped vocational education, more recent legislation has unwittingly encouraged it. The Vocational Education Act for 1963 (and its amendments through 1976) was intended to encourage the achievement of sex equity. However, as Rosenfeld (1979) has pointed out, the means of program evaluation has encouraged the maintenance and development of inequitable programs, especially in traditional communities. As long as vocational education programs are judged by the number of graduates they place, the best guarantee for success is to prepare young men and women for the kinds of jobs traditionally considered "sex-appropriate." To mount unconventional programs is to court failure. Given the limitations on the training capacities of secondary-level vocational centers, this kind of evaluation has a particularly negative effect on the training of women. Many of the higher-income women's occupations (such as nursing or elementary teaching) require training beyond the secondary level. But, as one Home Economics teacher complained, she hesitates to encourage her better vocational students to go on for more training, because "going on to school is not placement," and entry-level placement is the gauge of success. This form of evaluation works against young men in some instances, too, but the entry-level positions in the typical "men's occupations" are generally superior to those available to women, and therefore the effect on men is not as great.

Beyond VoAg and Home Ec: Polarized Programs and the Myth of "Nice Mix"

In the small rural high school, the vocational programs are restricted in both size and scope. The smallest schools selected for this study (with total enrollments ranging from 100-261 in grades 9-12), tended to offer only two or three programs: generally the standard Vocational Agriculture and Home Economics package, plus either Business Skills or some form of Industrial Arts. Larger schools, especially those who draw students to their vocational programs from very small high schools in the surrounding area, offered more programs, frequently adding courses of study in Distributive Education, Child Care, Machine Tool Drafting, or Food Services to the standard array. The Area Vocational Centers, with their federal funds and broader selection of students, tended to offer the standard programs plus courses requiring substantial investment in equipment, such as Building Trades, Metal Trades, Printing and Graphics, Auto Mechanics, and Health Occupations.

It is clear that students at the larger and more specialized schools have more choices in vocational training. But it is equally clear that, in sex-stereotyping terms, those choices are nearly as polarized for the student at the Area Vocational Center as they are for the young person enrolled in a tiny rural high school.

This situation is not uniquely rural. As Rieder (1977) points out, vocational programs nationally "faithfully mirror the occupational segregation by sex in the labor force." But rural women, already embedded in an extremely sex-stereotyped culture, seem less likely than their urban sisters to hurdle the barriers protecting male-dominated occupations. Thus, highly polarized training opportunities are very likely to accentuate the channeling of young rural women into the most traditional female jobs. Several vocational staff members noted that it is very difficult to persuade girls to enter unconventional programs. One vocational director attributed this difficulty to "sex biases of the family and inadvertent sex biases of the staff." Others, including students, singled out the peer group as a particularly powerful force in maintaining traditional sex-role lines. Virtually every teacher and counselor interviewed had stories of girls who wanted to try Auto Mechanics, or Forestry, or Agriculture, "but her boyfriend vetoed it," and there was substantial agreement that unconventional enrollments required peer approval and support. "It's difficult to get them started," one counselor commented. "If they had a friend or a few girls in it, it would be okay, but they're afraid to intrude on male territory on their own."

For the girls who stay in their "own territory," the opportunities are very limited. The "Office Skills" courses generally offered by small high schools prepare their graduates for only the lowest level clerical positions. In many places, these graduates are readily employable; school personnel tended to agree with the guidance counselor who said that "a lot of companies like rural students and their high moral values." But the jobs they get -- as bank tellers, bookkeepers, typists in small offices -- do not lead either to advancement or good pay. Employers like to hire polite, hard-working rural girls, who wear skirts instead of blue jeans and get to work on time, but they don't like to pay them more than minimum wage. There are good jobs, even within the clerical field, for which these young women could be trained, but a lone Business teacher would be hard-pressed to provide the kind of advanced training required for legal, medical, or executive secretaries. Further, even if such training were provided, the local labor market could not absorb such specialized personnel.

Health Care programs are similarly limited in the skills they can teach. The well-paid jobs, the jobs with mobility, all require post-secondary training. The graduate of a secondary health program is employable only in low-level, dead-end jobs. While there are also limits to the employment opportunities for graduates of male-stereotyped secondary vocational programs, they are both broader in range and more lucrative than those for women.

Business and Health Care programs prepare their graduates for low-level work, but the alternative female-stereotyped programs prepare most of their students for no paid work at all. Home Economics, which is not considered a vocational program by the federal government, is named as the primary vocational resource for girls by the high schools visited. The teachers in these programs have frequently made significant efforts to make their courses relevant to the interests of their students -- male and female -- but their reforms have led them toward studies that are more likely to enhance the quality of life than the quality of income. A number of Home Economics teachers interviewed have launched successful "Marriage and the Family" courses, which have the tendency, as one teacher put it, "to change a lot of minds about getting married right after high school -- they begin questioning when we come to the part about budgeting." Others have career orientation and life planning units build into the curriculum. This kind of learning undoubtedly has a useful function in women's career development, but it does not provide the high school graduate with marketable skills.

Child Care programs, which are technically occupationally-oriented, do not appear to be much more likely than Home Economics courses to enhance employability. Rural communities rarely offer formal day care programs (even though many need them badly), and the typical Child Care program does not offer the small business management training that would be necessary to enable a young woman to start a Center of her own. Thus, many of the young women enrolled in such programs agreed with the girl who said, "I knew I wanted to be a mother and I thought this program would prepare me." Only a few harbored visions of starting Day Care Centers or Well-Child Clinics, and they did not seem to have the practical expertise to realize their dreams.

Thus, the young women enrolled in the traditional female-oriented programs finds herself trained either for a low-level job or for no job at all. Those who want more must go on for further education, or they must "rush into those haunts and paths already too crowded with the sterner sex," and compete with boys in male-dominated vocational programs.

Some do. But, the data suggest, not many. According to a statistical analysis done by the NOW-sponsored Project on Equal Education Rights (PEER), in 1978, women constituted a maximum of 20 percent of the enrollments in traditionally male-dominated programs -- and that level is achieved only in Michigan and Washington state. In the more rural states, the percentages range from 5.2 percent (Arkansas) to 9.48 percent (Vermont), both below the national average of 11 percent. Further, these figures include post-secondary vocational training, which tends to draw more women into non-traditional programs; the percentages are probably lower at the secondary level.

These statistics were supported by our interview results. While there are some programs, particularly in Agriculture, which have high proportions of girls, most of the traditionally male sequences are overwhelmingly masculine in enrollments and in what some teachers and administrators call "flavor."

In this context, a girl has to be either highly motivated or rather frivolous to enroll in a traditionally male program. Among the young women interviewed, there were both. The highly motivated generally had very specific plans for the application of their skills. Several of the girls in Vocational Agriculture said they were planning to take over family farms. Others believe that a male-dominated occupation is the best route out of a constricting environment. "I'd like to go to different states and different corporations," one female Metal Trades student said. "I want to get into bigger places, see the world." This kind of vision seems to give some young women the capacity to focus on an attractive future, enabling them to ignore a present in which they are often teased by the boys, sometimes condescended to by the teachers, and occasionally actively discouraged by the response of their communities. "Everyone in my town was really shocked," the outwardly mobile Metal Trades student said of her decision to enter the program. "My parents thought at first that I was really out on a limb, taking too much on. Now they say, 'Just so long as you're happy.'"

Those girls who enrolled in non-traditional programs for frivolous reasons seemed willing to ignore their own capacities to do the work required. Two girls in a New Hampshire high school's Building Trades program said they picked that sequence because "our boyfriends were taking it and our friends said we wouldn't dare." Their teacher declares that "in many cases, the girls are outperforming the boys," and the vocational director of the school says, "Those girls are tough -- perfectly willing to deal with physical challenge." But the girls themselves reject any notion of using their skills to earn a living. Besides, "it gets us out of school in the afternoon." As one said: "There's too much prejudice around here to choose a man's job. I've heard too many stories about how women are treated."

It is clear that polarized programs have built-in problems for young women, whether they follow the traditional or the unconventional training route. It would seem logical, therefore, to create more sex-neutral programs which would offer a broad range of relatively high-level opportunities to both sexes without requiring young women to surmount barriers which do not face young men. This, however, is easier to propose than to implement.

At present, only a handful of programs -- Distributive Education, Food Services, plus an occasional Business course and Printing or Graphics sequence -- ever has what vocational directors like to call a "nice mix." And even this mix is often illusory. Within the "well-mixed" programs, students are often re-segregated by sex: in a typical Business program, for example, the typing and shorthand courses will be entirely female, while the accounting and management classes have more males. This re-segregation reflects different visions of the future. As one Business teacher said, boys take Business courses "mostly for -

their own personal use -- to keep books in business." The girls look to office skills for their livelihood; the boys, on the other hand, see these skills as a useful tool in a more complex occupation.

These differences in perception persist even when boys and girls take the same classes. Food Services programs are frequently mentioned as a "well-mixed" program, often predominantly male, but with women moving up in the enrollments. But the girls who enroll in these programs tend to have very different motivations from those of the boys. In one group of students we interviewed, the boys reported plans to "have my own restaurant," and "to open my own place -- something seasonal," while the girls said they had enrolled in the course because "I couldn't cook at all," or because they wanted to prepare for married life. Thus, there is polarization even in the most apparently sex-neutral programs.

Creating genuinely mixed programs appears to be difficult, especially in conservative rural areas. Several vocational administrators mentioned strong community resistance to the notion of neutral programs or "program clusters," which would attract mixed enrollments and then train for a broad variety of occupations. One vocational director said that he has been trying to put together a cluster of programs around the theme of "Protective Services," including police, firefighting and security guard preparation. But the community resisted the notion. "It's easier to sell the community on traditionally male occupations," the director said. "It's difficult to get the community to go along with the cluster concept. They figure it's the man who will have to earn the living." This sentiment was echoed often. "The town wouldn't go for a (sex-neutral) program," one Business teacher said. "They only go for stereotyped male occupations." This teacher, and the vocational director cited before her, come from very different communities -- one relatively urbanized, and in the midst of a diverse labor market; and other very rural, with only two large employers. But both have one thing in common; the bulk of women in the region are employed.

Twenty years ago this was not true. But community attitudes have not changed with the labor trends, and the belief persists that where resources are scarce, the training of women is a luxury.

Sex-neutral programs are also difficult to mount because they tend to be specialized in nature. It is very easy for a program which prepares for a narrow range of jobs to flood a rural region with its graduates. Its own success can drive a program out of business. Programs in printing and graphics, for example, show promise for mixed enrollments (many are dominated by one sex, but that seems to be a function of the program's history, rather than of stereotyping in the labor market), but their graduates may have to leave the community to find work. For some young people, out-migration is a cherished goal; for others, it is an undesirable consequence of obtaining vocational preparation. One vocational director thought that program rotation might be a reasonable way to deal with this problem. Programs could run for three to five years, and then would be replaced with another specialized training effort. There are problems with this model. Equipment costs might prove prohibitive; teachers might have to be replaced. Further, students who want a particular kind of training would have to hope that they were the right age in the right year. "It's hard on a kid to say, 'Oh, you want to go into health work? Sorry, it's a year too late for that,'" a vocational director said. It seems, in many schools, that it makes more sense to train students in generalized skills which have broad applications within the local labor market.

Someone concerned with enhancing the position of women in the rural labor force might well conclude that the most promising route is to encourage female enrollment in traditionally male programs. This is the strategy used in most of the schools visited for this study. While vocational directors and teachers tended to bristle at the notion of "head-hunting," or "trying to force a girl into Auto Mechanics just for a statistic," many of them are making active efforts to recruit girls into non-traditional programs and to provide them with the appropriate support system (primarily other girls and co-op placements) to help them make it through. One guidance counselor mentioned a colleague at an Area Vocational Center who makes a routine practice of pointing out girls in non-traditional programs when he guides groups of prospective students through the school. "It backfired recently," she said. "Some sophisticated fifth-grade girls suspected him of being sexist because he kept pointing out the females in the programs."

In spite of the pressures of Title IX legislation, and in spite of the efforts of the sex equity coordinators, a number of factors -- other than an overt desire to achieve equity -- seem to affect non-traditional program enrollments among women. Schools in areas which have experienced in-migration from metropolitan areas seem to draw more women into non-traditional programs than those which have remained more homogeneously rural. Programs tended to be more mixed in those schools surveyed when the schools were near a city, or when they were in a resort region which had drawn metropolitan families in search of the "good life." One principal in the latter type of district suggested that the cross-enrollments tended to come from the new families. "It's mostly French Canadians and northern Yankees around here," he said. "The family is a strong and important value. That's the way it is -- in order to keep a strong family, you need the female in the home." It is the more "socially liberal" families, he added, who encourage their daughters to think about careers. For the long-time residents, "the goal is for the woman to get married and have a family."

Cross-enrollment also seems to vary with the local availability of actual jobs to which the training applies. In the ski country of central Vermont, for example, there is a reasonable market for trained restaurant cooks. Thus, there is a real incentive for young men to enroll in Food Service programs. In the schools we visited, the existance of local jobs appeared to have a more immediate impact on cross-enrollment of males than on females, but it seems evident that perceptions of what jobs are appropriate for males and females can be altered by changes in the job market.

The Critical Complex: Teacher/Student/Employer Attitudes

The most important factor affecting non-traditional enrollments appears to have nothing to do either with the make-up of the local population or the availability of jobs. It has to do with the interaction of teacher, student, and employer attitudes, which can vary from school to school, even within very similar districts. It is important to look at these attitudes as a complex. A single instructor can have an impact on cross-enrollment, but it is unlikely to bear fruit unless the employers are prepared to hire women trained in traditionally male skills. Further, the employers are often influenced by the teachers in a variety of ways which will be described below. Finally, the peer group can influence its members either to accept or reject non-traditional training, and the attitude of the peer group is affected by teachers as role models and by the experience of older siblings and friends as they have entered the labor market. For the purposes of discussion, it is possible (and probably necessary) to break down the complex into its components. But as they exist in the real world, they are engaged in a constantly changing interaction with one another.

Instructor attitudes appear to be pivotal in the development of student response. We found, for example, some Vocational Agriculture programs which were evenly split between males and females, and others where the males outnumbered the females by more than 40:1. The well-mixed programs invariably had instructors who actively encourage female enrollments; the single-sex programs had teachers who are tolerant of women at best, and openly biased against them at worst.

One Vocational Agriculture teacher, whose classes are consistently half female, attributes his success to the "girls in the past who have recommended it to their friends -- my biggest publicity is through the kids." In view of his attitude towards women, this chain of recommendation is not surprising. "I like to see girls in the program," he says. "They add a lot. Girls like the greenhouse a lot, and they work out in the woods -- love sugaring." Not only does he welcome them into the program, he also maintains an abiding faith in their employability as graduates. "I personally believe that a girl has an equal chance of being employed if they have a positive attitude when applying," he says, and the girls in his program reflect his belief that there is room for them in agriculture-related enterprise.

In the last few years, this teacher has modified his program in an attempt to broaden the job prospects of his graduates. "My idea is to expose them to many areas, so they can see what they like. We used to be mostly dairy production, but then I diversified and the enrollments increased." Some of these diversification efforts specifically enhance the job prospects of the female students; horticulture, landscaping, and work in the USDA dairy and blood labs involve work which is likely to seem female-appropriate in the communities around the school. But all students are enrolled in the same courses, and he makes no effort to steer female students towards certain interests. His students say that he treats boys and girls as equals, and expects them to participate equally in all aspects of the program -- from the woodlot to the greenhouse.

This instructor was not unique, even in our limited sample of schools. But his attitude seems to be less typical of teachers in male-stereotyped programs than was that of another VoAg teacher, whose program is the only vocational alternative to Business courses in his small, remote school. Like the first instructor, this teacher attributes his enrollment pattern to peer influence. Unlike his counterpart, however, he has two girls enrolled in the program -- with 81 boys. "The imbalance results from peer pressure from their girlfriends," he says. "And the boys give them grief."

A closer look at this teacher's attitude suggests that there are other sources of "grief" for female agriculture students at this school. "We interview freshmen," he says of his recruitment process, "to make sure they're really interested in the program. We're especially interested in interviewing girls. We want to make sure they're not taking it because of their boyfriends. I'm a life-long resident of this community. I know these kids and what they can achieve."

This teacher declares, with obvious sincerity, that his program has "something to offer to both boys and girls," and claims to welcome young women into his program. But his non-sexist claims do not seem to inform his actions. He gave a number of examples of what good students can do in agriculture programs -- all were male. In contrast, his example of a female student was "a real weirdo -- dyed her hair green for St. Patrick's Day." He says that he treats boys and girls as equals, but adds, "They have to work, too -- not just stand by and watch a boy do their work for them." The deep-rooted belief in the prospects for female success in male-dominated occupations does not seem to exist here. And, in fact, there seems to be little non-traditional hiring in the community served by the school. As the Business teacher in the same school said, "In stores, all the meat cutters are men and all the cashiers are women. There is little chance for (female) advancement. There are women with college educations working in the factories."

It is difficult to determine the extent to which the local opportunity structure shapes the attitudes of vocational teachers. But it is clear that vocational teachers can have an impact on the local job market -- and that their view of women in non-traditional occupations is important to the kind of impact they have. A printing teacher at a Vermont Area Vocational Center indicated what can be done. "I think I've broken the barrier," he says. Seven years ago, he tried to place a young woman in a co-operative program with a local printer.

The printer refused to take a girl. But the teacher had been around a long time, and knew the printers well. He forced the issue. "I gave him a few choice printer's words," he says, "and he took her on." The printer later hired the young woman and now says that he couldn't get along without her. In a small business community, word travels fast. The instructor does not expect to have any problems placing female apprentices again.

Obviously, a number of factors went into this small success story. The instructor was an established member of the local community and could not be dismissed as a wild-eyed newcomer. He is male, which appears to have some positive influence on non-traditional employment. He had worked with local printers for awhile before he placed his first female apprentice, and was thus able to overcome initial resistance with the sheer weight of his prior relationships with those employers. But at the root of his success seems to be his belief in the capacity of women to do sound work in any field. "The girls have proven they can handle it," he says. "There's no great difficulty in mechanical ability. Boys sham more -- girls make awful mistakes, because they're less afraid to make them. But then you can teach from them." He proudly displays a beautiful cookbook his class designed and printed. "I would never have gotten that from boys -- I don't care what anyone says!"

Belief in women's capacities can help an instructor break through employment barriers. But the converse is, evidently, equally true. In one southern New Hampshire community, where junior high school girls are still required to take Home Economics while the boys take compulsory Shop, the few girls who enroll in Industrial Arts classes at the high school level are not taken seriously. "We had a separate course for girls a few years ago," the teacher says. "It was geared differently. They had easier projects -- made pin holders and things." He has a few girls in his classes now, but does not see their skills as useful in a vocational context. "Cindy is in Home Maintenance," he says. "She can learn how to fix irons and sewing machines. She seems to enjoy it, even though she doesn't get too much out of it." The school's principal makes the same kind of distinctions about the girls in the Small Engines class; "The girls do well on the tests," he says, "but they are not comparable as to actual mechanics and application." A few "choice printer's words" might well be applied to attitudes such as these. But they are not uncommon in rural schools, and serve to reinforce the traditional sex-stereotyping that exists in rural communities.

Although there was a great deal of evidence that teachers can shape peer group attitudes towards formerly stereotyped vocational training, most of the professionals in the survey felt that peer influences operate independent of anything a teacher can do. These pressures, they said, are generally negative, in that they reinforce the traditional and stereotyped views of the community, and discourage girls from enrolling in atypical programs. Most teachers had stories about how the boys treat girls in male-dominated programs, which they told with disapproval. The girls, however, seem generally to have worked out a means of dealing with harrassment -- a combination of outrage and humor which seems to get them through the year. One girl, in a shop class in an extremely traditional school, said of her male classmates, "We get along good." But then she adds: "I had all the wires on my project and they pulled them out. I was so mad. Electrical work is hard -- and they did it just to be funny." In another school, the Metal Trades teacher says of his female student, "She gets some flak from the boys -- but she just ignores it or gives it back. Whether or not their position as permanent target has serious psychological costs is not clear. The girls who get up the nerve to enroll at all seem to handle peer harrassment well.

A number of teachers reported modification in the attitudes of boys in classes where there have been female students, even if only a few. A Metal Trades teacher says, "Boys react quite well to girls -- they were a little paternalistic at first, but the attitude wore off when they found the girls were better molders by far." The girls in that program report that harrassment has diminished, and they seem willing to interpret reduced teasing as welcome.

Just as there are limits on an instructor's capacity to mold peer attitudes, there are limits to the vocational program's capacity to alter attitudes in the job market. While rural teachers, at least those who have been around for awhile, can have a great impact on their communities, this impact is often balanced by the resistance of the rural community to non-traditional approaches to employment. One Business teacher told a story which she says is typical of her area: "One bank called the other day and said they were looking to hire a boy they could eventually move up into a managerial position. I said, 'We have three girls who have straight A's.' They insisted on a boy -- they didn't want a teller, they said. I had to give them a boy with a C average." Other teachers told similar stories of employer intransigence -- which is often backed by the attitudes of families and friends.

When the local employment market is closed to women with non-traditional skills, pressure for out-migration is strong. One vocational counselor summed up a common attitude: "My guess is, Joe at the local shop would take a boy over a girl, no matter what. But big companies are crying for women. They've got to get their Federal money and meet their quotas -- they'll scoop 'em up." This situation is fine for the girls who want to leave their home communities, but it is a clear disincentive to those whose primary desire is to stay where they are. In some schools, teachers reported student reluctance (especially among girls) to travel as far as the nearest medium-size town to work; the transition from the rural school to a slightly more cosmopolitan workplace causes a crisis of confidence in many of her female students, one teacher told us. "They don't refuse those jobs because of lack of skills -- the banks would rather have our students -- but because of the life style." In the context of this kind of reluctance to leave the familiar, it is clear that if non-traditional training requires leaving the area to use one's skills, many young women are unlikely to want it, even if they have appropriate talents.

This study of the current status of rural women's vocational education has not produced a particularly optimistic picture. Young women with complex (and often incompatible) desires for their future grow up in conservative communities served by schools with limited vocational training options. If they choose traditional female sex-stereotyped programs, they are likely to be stuck in low-paid jobs which do not use their talents. If they choose male-stereotyped training, they are likely to have to leave their home areas or struggle to find a place among reluctant employers. If they have access to a sex-neutral program, choosing it is likely to prepare them for a very limited number of local jobs. In addressing the needs of rural women, vocational programs find themselves whip-sawed -- torn between the pressures of the state and federal governments and the express desires of the community. Often, the specific needs of female students become merely the rope in this value-laden tug-of-war. It is no wonder that rural high school girls are often confused about their vocational future. It is no wonder that vocational directors tend to sigh heavily when asked to talk about their programs and plans for women's education.

* * *

> *Jackie has lived all her seventeen years in a small Vermont town and plans to stay there. "I went to New York City once," she says. "Down there I'd live in constant fear of getting mugged or raped -- you have to keep your door locked all the time. No, I definitely want to stay around here."*
>
> *She has definite plans for work as well. She has already done some waitressing, and is sure she wouldn't want that for the rest of her life, "you get sick being around food all the time." Nor would she want "a constant typing job," though her Business Occupations teacher praises her skill in typing. What she really likes best is "working*

with people, like working in a bank out front." She is studying bookkeeping and shorthand and computer programming because they should help her get the kind of job she wants; they'll "look good." Her teacher considers her one of his best all-around Business students, and feels she has excellent chances of being hired by one of the banks in the area. He takes care that his students understand the fine points of getting a job, like employers' preference for skirts and stockings rather than jeans. Jackie knows how to be poised and confident in an interview, and has already had several promising ones for summer work.

Jackie also knows that her best employment opportunities will be outside her own town, in one of the more sophisticated communities ten and fifteen miles south. While her guidance counselor feels that employers in those towns like to have rurally-raised workers because of their "high moral values," Jackie has encountered some "snotty" attitudes, which she attributes to the fact that she lives in the country. Unlike some of her classmates who worry about how they'll "stack up" against more cosmopolitan candidates for jobs, Jackie is not intimidated. "I don't feel anybody should be walked all over. After all, I'm doing them an equal favor." She expects the bank she'd most like to work for, the area's largest, "will probably treat me on an equal level."

Her determination to stay in her home town while working at a good job down the road has raised the problem of transportation. Jackie has this all figured out, too, at least for the summer. At her father's suggestion, she bought a Moped. It was a matter of having to "decide priorities." This purchase meant that she didn't have the money to go on the Honors English class trip to England. But she enjoys her bike. "At first, people were talking like anything," she says with glee. "They were really shocked!"

This kind of notoriety is "funny" to Jackie, who sees no reason why a girl shouldn't ride a Moped. But on more serious issues she declares herself more traditional. She feels, for example, that the wife should take major responsibility for housework and childrearing in a marriage. One of her teachers has a husband who stays home to care for their small child; Jackie says she admires this, but adds quickly that she wouldn't want her own husband to do such a thing: "It would make me feel awkward. It's as if he's not quite as manly, you know?" Still, she would like help with the dishes, and perhaps other tasks so that "you could both go out and have fun - so it's not just him going off fishing and hunting." Jackie feels the concept of compromise is important in a marriage. She and her boyfriend Peter have worked out "pretty much the same ideas," she says, "though we used to fight a lot."

One of the things Jackie and Peter agree on is marrying and having their children young. Jackie notes that this is a common pattern in her town, where "everybody knows everybody else." Although the teachers and advisers at her school counsel waiting, she feels having children at an early age can be a good thing. "My parents are pretty young, and we're really close. We have a great time. You can have more fun with your kids if you're nearer their age." Accordingly, she hopes to have hers early and "pretty close together," but not too many: "maybe two . . . it's hard to pay for kids. It's not fair to have more than you can afford."

Another thing Jackie and Peter share is this recognition that raising children is expensive. "Peter wants me to work," Jackie says. "We couldn't afford just one person's salary. . . . Usually you have to have both working." Peter plans to set up his own lumber operation, *because "he loves to work outside and be independent"; Jackie plans to return to work after having her children. She realizes that she will then need someone else to care for them, and is hopeful of finding someone like Peter's sister, who "takes in seven or eight kids along with her own. I certainly wouldn't leave them with anybody I didn't trust."*

Jackie's confidence in her ability to create the future she wants extends even to the details of her home. She and Peter have their eye on some land to buy, and plan to build their own house. "Right now we'd just put up the shell, work a bit at a time." But in ten years, Jackie sees herself "in a nice house - that's the biggest goal - with a couple of kids and a good job." When a friend points out that she hasn't mentioned a husband in this vision, she says, "Oh! I just figure the husband comes with the house. . . . Gee," she says and laughs, "I don't sound very liberated, do I?"

* * *

Looking to the Future: Prospects and Programs

While the present status of rural women in the labor market is distressingly low, the situation is not hopeless. There is much that vocational education programs and personnel can do to prepare young rural women for interesting and varied labor market participation. Among the schools in this small study, we found a number of promising ideas being tested and implemented. With enhanced communication among rural schools, some coordination and adaptation of programs might fruitfully occur.

Several steps could be taken to make vocational programs more relevant to the specific needs of rural high school students:

1) Design and adopt courses which will help rural high school students to develop realistic and thoughtful career orientations for themselves. This is

particularly important for rural girls, who do not tend to get adequate counseling through the customary structures. The POI study found that, as compared to males, female high school students tend to get little help in career planning -- from guidance counselors, teachers, or parents -- thus reducing the likelihood that they will be able to achieve ambitions which require complex or long-term training. The non-college bound girl, who is most likely to be enrolled in a secondary school vocational program, tended to be the least likely of anyone in her peer group to get advice at all (Dunne, et al., 1978).

Teachers and counselors agreed that some kind of career planning program was important for these young women. Vocational counselors said that most non-college bound girls make no particular career plans, in contrast to young men. "Most of the girls plan on being married three or four years after high school -- unless they are pregnant," one principal said, reflecting a general assessment of female ambitions. "A lot of girls want to achieve," a guidance counselor at another school noted, "but they have this fall-back -- 'I can always marry some rich, good-looking guy.'" Since this "fall-back" in most rural areas is about as useful as depending on winning the state lottery, it does a real disservice to girls who use it as a basis for life planning.

The girls, themselves, generally projected a vague career, supplemented by fairly detailed plans for husband-home-family. Many were able to tell us more about the number of children they plan to have in 1990 than about the kind of job they will look for next year. Further, some of those with concrete career plans had little notion of what those plans entailed. One girl said that she wants to "get a little pet shop," because she likes animals and has raised several of her own. But she does not know anything about running a small business, and it has not occurred to her that such information might be useful to obtain. "I'll get an accountant," she says breezily, and giggles.

Obviously, girls like this need help in planning their lives. They need to learn to deal with the contradictions implicit in the juxtaposition of traditional values and contemporary pressures. Young women need to recognize that they cannot simultaneously be Olivia Walton and Mary Tyler Moore. Choices must be made. Further, they need to plan a future, rather than to assume that it will reveal itself to them. Girls who want a career need to know where training is to be found, what obstacles might stand in between them and satisfactory employment, and how those obstacles might be overcome. For many, the place to have this reality orientation is in high school, where many problems and conflicts can be worked through in a supportive and sheltered environment.

Teachers and guidance counselors suggested a variety of ways in which this kind of training can be accomplished. Several schools offer formal courses which encourage career planning, or which compel students to look at the realistic implications of certain decisions they might make. There is at least one commercially available curriculum, developed by a team led by this author, which is used -- in various adaptations -- by some of the schools in the study. This course, called "Options": A Career Development Curriculum for Rural High School Students (Dunne, et al., 1980) uses case studies and simulations to teach high school girls and boys ways of confronting career and family choices. Other teachers have developed similar curricula of their own. Several teachers said that courses in "Marriage and the Family" serve this function, since they focus on the reality, rather than the romance, of family life. "They begin questioning early marriage when we come to budgeting," one Home Economics teacher said. "This course has changed a lot of minds about getting married right after high school. Both boys and girls decided to postpone it, or not marry at this point in their lives."

Other teachers felt that courses at the high school level come too late to do a great deal of good. One counselor in an Area Vocational Center said that non-stereotyped career orientation must come early if girls are to be expected to make sound plans in high school. As one principal commented, "The sex divisions are in the culture these girls come from," and there are limitations to the impact school curriculum can have.

Nevertheless, most teachers seemed to feel that courses have a useful, if limited role in the orientation of girls to the outside world. Several teachers agreed with the woman who said that classwork was most likely to have an impact if it was bolstered by role models -- favorite teachers who demonstrate non-traditional family styles. "Men on this faculty are not afraid to do traditional women's work," one teacher said. "There are fathers taking care of kids -- this kind of example is very important." In rural communities, where the life styles of faculty members is likely to be well-known to students (and to their parents), this kind of modeling can be a useful teaching tool.

2) Encourage young women to consider non-traditional careers. Principals and vocational directors at every school in this study declared with vigor that their programs are open to both males and females. But there is a gap, and sometimes a gulf, between openness and encouragement. In one school, the Shop teacher says, "I say they're welcome, but maybe they're afraid of me. I'm pretty strict. One girl was going to take my course this year, but she didn't. She would have been the only girl." In another school, the Metal Work teacher made sure that the sole female freshman in his course was placed with the sole senior girl, encouraging them to help and support one another. In both cases, the official posture is welcoming; in practice, the differences are obvious.

The data gathered for this study suggest that effective female recruitment in rural schools is entirely possible. Taking vocational agriculture as an example, we have seen that marked differences in female enrollment appear to stem from differences in instructor's attitudes and in their willingness to organize courses which include "female" subjects of interest (such as horticulture). In fact, vocational agriculture might well serve as a model for non-traditional recruiting. It has been a male bastion for nearly 100 years, but it is also amenable to broad interpretation in terms of the skills it teaches. VoAg instructors could spearhead a positive effort to recruit young women, and serve as a model for broadening the focus of other traditionally male training programs.

Vocational education teachers and counselors need to be told that career choices are not made entirely on the basis of peer and family influence. They need to be confronted with the evidence of successful non-traditional enrollment efforts, so that they can stop attributing exclusively to the rural culture attitudes which they often share themselves.

3) Re-educate rural vocational teachers and employers about the potential of women in non-traditional occupations. It will not be enough simply to inform vocational teachers that they can attract women to non-traditional programs. They need help in planning strategies for recruitment, support, and training of women who are ready for characteristically male careers. There is already significant pressure on vocational programs to raise their female enrollments; many teachers and administrators reported a sense of frustration at the lack of positive suggestions to back up the implicit threats. "They get carried away and put stickers on our books (indicating sex-stereotyped material)," one teacher said. "It's not our fault." Workshops and other in-service training activities might reduce frustration and enhance the effectiveness of recruitment programs.

It seems likely that the best instructors for such workshops would be rural vocational teachers who have dealt effectively with problems of female recruitment and support. They have had first-hand experience in dealing with the problems which keep girls out of non-traditional occupations, and with the values of rural communities which reinforce those problems. Further, they are likely to have high credibility with other rural vocational teachers who might reasonably dismiss urban-based vocational instructors, or people who have never wrestled with the complex problems of vocational education. Finally, the use of rural vocational teachers to train others like themselves will give some credit and visibility to those who have pioneered non-traditional female training -- credit many of them could use to keep them going in what is often an uphill struggle.

The re-education of teachers is only the first step, however. It must be coupled by the re-education of employers. There is little use (and perhaps some negative impact) in making young women feel welcome in non-traditional programs if they are going to be unemployable when they are trained. Since many vocational teachers have strong ties among employers, it is probably best to leave the community education function to local staff. One vocational teacher, a man with a good record of non-traditional job placement, says that "one-to-one co-op placements have the most local effect," probably because he makes sure that every successful experience is widely reported in the community. Once again, it is unreasonable to expect that every vocational teacher will automatically know how to re-educate the local employers; materials and direct instruction must be provided to help with these efforts.

4) Develop more sex-neutral programs. In spite of the problems associated with sex-neutral programs in rural areas, such as labor market saturation and community resistance, they are worth serious attention. First, there is some evidence that more occupations are coming to be regarded as sex-neutral among rural young people, thus expanding the boundaries of this category. One school in our sample reported that the local Area Vocational Center's Printing and Graphics program had "become more neutral" during the last few years, in spite of its traditional male bias. No one could say why, except to note general changes in society and the employment market which have encouraged young women to enroll in the program. Several schools reported similar changes in the perception of Foods courses, as restaurant work becomes a more fashionable occupational option for young men.

An analysis of enrollment patterns in Vermont and New Hampshire vocational programs (post-secondary as well as secondary) seems to confirm local perceptions of a broadened view. While most courses were still polarized; a substantial number fell into a mixed-enrollment category. These included courses in accounting and management, data processing and computer programming, printing and graphics, health technician programs (other than nursing, although there seems to be some movement of young men into that traditionally female-dominated field), landscaping and horticulture, bartending, real estate, natural resource management, and quantity foods preparation. If sharply polarized perceptions of occupations are beginning to disintegrate, it would be wise for secondary school programs to encourage that trend. The very existence of sex-neutral programs breaks into the conception of "natural divisions" between men's and women's work, and weakens the barriers maintained by that perceived division.

Further, sex-neutral programs offer young women the opportunity to upgrade their occupational status without violating the traditional norms of their communities, or the expectations of their peers. A young woman who would never consider trying to be a welder might well prosper as a restaurant chef, or as a greenhouse manager. And the existence in a community of mixed-sex employment within one occupational category paves the way for mixed-sex employment in less conventionally acceptable jobs.

Some schools attempt to resolve the problems inherent in sex-neutral programs by designing "cluster programs" in large categories like "Protective Services," or "Human Services." They reason that, even though these programs are made up of actual jobs which have traditionally been polarized (fireman/meter maid; nurse's aide/ambulance driver), the co-existance of boys and girls within a general course of study will begin to break down those distinctions. It is difficult to say how successful this approach has been; in our sample, the schools were in the initial stages of developing such programs, and had no evidence of their success and failure.

5) Develop programs to train women entrepreneurs. There is some good

evidence that small business may be a most promising field for rural women (Teal, 1980). Many rural areas are presently experiencing a wave of in-migration from metropolitan places (Beale, 1976), providing an excellent market for new business. Even in places where the population is not rising, a history of underservice in rural communities often makes small business development plausible. Women can profit from these opportunities.

Small business and service enterprises are well-suited to rural women's needs and interests for a variety of reasons. They do not require an enlightened employer; they do not require large capital outlay; they can benefit from some traditional rural female strengths: independence, self-sufficiency, willingness to put in long hours of work. They also permit women who want to develop traditional "women's skills" to make a reasonable living. For example, many young rural women would like to be beauticians. They invest a great deal of time and money in the training programs required for licensing, and are then faced with the problem of finding a job in a beauty parlor (often far from home). When they do find a job, most of their receipts go to an employer. If a young woman knows how to set up a small business, she might be able to open a small shop of her own, catering to local needs and permitting her to achieve income, autonomy, and usefulness to her community. But beauticians' training does not prepare anyone to run a business. Specific programs need to be designed to provide that kind of training.

While some teachers interviewed for this study felt that there was little room for small-scale private enterprise in their communities, others felt that this attitude indicated lack of imagination, not opportunity. One assistant principal said, "I once made a list of twenty-two things youngsters could do to supplement income in their own towns. The gas crunch is going to drive people back to the towns, to more self-sufficiency. If _I_ had federal money, I'd set up a coordinator in each town to set up small businesses. There are a million things.

they could do right in town -- paint and repair houses, glaze windows, repair small machines. . . ." One school has launched a small business program under the general rubric of Vocational Agriculture; others are considering similar steps. Many teachers are not prepared to teach such programs, however. One Home Economics teacher said that there was a real need for day care centers in her community, but had no idea how to teach the business skills required to start one. She felt perfectly prepared to teach a Child Care course, but could not teach subjects about which she knew little.

If small businesses are to be a genuine opportunity for women, money and expertise must be made available to provide the training required. These are not impenetrable skills, available only to graduates of the Harvard Business School. But they need to be packaged and made available to rural schools and to the rural women -- young and mature -- who need them.

6) Design programs which will teach women to use their skills for supplementary income. Many rural women want to maintain their primary identity as homemakers and mothers. The bulk of the girls surveyed for the POI study said they felt that mothers of young children should not work outside the home; many said that they would prefer not to work until their children are full-grown. But many of these same women will want (or need) to earn some money. Programs should be provided to teach young women how to turn skills they already possess into income-producing work.

Many young women, even in these modern times, have learned from their mothers and peers a number of old-fashioned skills -- sewing, canning, quilting, knitting, and other forms of hand work. These can often be used to provide supplementary income. Women who know how to quilt, knit, or make leather goods can earn some money with virtually no overhead costs, working at home, in their spare time. Women who know how to garden and can are capable of running produce stands, or of supplying local markets with home-made or home-grown foods. Other women would like to learn new skills which could permit them to earn money at home. Students at one school expressed a desire for programs in furniture refinishing and chair caning. A teacher in another school recommended a course in sign-painting, for women with artistic inclinations. Numerous other skills could be identified, each appropriate for part-time, home-based employment.

But these women, like their full-time entrepreneurial sisters, need training in the elements of marketing, accounting, and other small business skills. Craftswomen need to know how to assess the lucrative urban markets, so that their quilts, afghans, or leather belts will appeal to the people who can afford to buy hand-made goods at high prices. They need to learn how to form marketing cooperatives, to get their finished goods to the best retailing outlets. And they need to learn how to prepare income tax returns which maximize the advantages of being in business for themselves. All of these skills can be taught, and the schools seem to be the most reasonable vehicle for teaching them.

These recommendations are just a beginning. But they have an important common element. They assume the existence of a full range of rural women -- from those who want to break into the predominantly male occupations and need help to do that to those who want to maintain a very traditional rural woman's role, but who need to earn a little money around the edges. Further, they assume that rural high school girls should be taught how to make choices, how to plan careers, but that they should not be taught which choices they should make. It is crucial that those of us interested in life preparation for rural women not make the mistake of assuming that "good women" will choose to forsake their traditional values. Much good has stemmed from those values as well as much constraint. It is important that efforts to make options available to rural women not result in the destruction of the rural communities that women have long maintained.

* * *

"Your size really holds you back on these machines," says Gina, indicating the collection of massive equipment in the Metal Trades

shop at her Area Vocational Center. "I'm only five-one; my friend who graduated last year was short, too. She got turned down for an apprenticeship and one reason the company told her was she was too short. Like I have to stand on a box to reach the brake on that one over there. So we were thinking -- why not have little crates so you could reach everything? There'd be a way around it . . . if they allowed you to find a way around it."

Gina will finish the two-year program in Mechanical Drafting this year. She started out with an interest in architectural drafting, but found the mechanical aspect "more interesting -- I like to tear things apart." She also enjoys working with machines in order to make the things that she's designed, which is what brings her to the metals shop. She is the only girl in her program at the Center, though there is a younger girl starting Metal Trades this year. With the help of her teacher, Gina acts as a counsellor and model for her; the school staff made sure Gina was working on a machine when the new girl came to the shop for her first day.

This kind of support is valuable in a program where, according to the Center's Coordinator, "boys are a little paternalistic at first" and according to the new girl in Metal Trades, "They don't like a girl in the shop; they think you can't do the job they can do." Gina sometimes feels isolated, but her work absorbs her and keeps her going. She gets support for that work from her drafting teacher, who has had up to 50% girls in past classes. Although he notes that girls "do lack in practical experience," he feels they tend to be "more careful, more precise, more exact" in drafting; they value "nice clean work" more than boys.

Gina looks forward to going on to college because it will help her get ahead in her trade. She expects to get "a B.A. at least" and then hopes a company will sponsor her for a Master's degree in engineering. She is bewildered by classmates at her local high school who plan to attend liberal arts colleges: "They're deciding to go and they don't even know what for. Seems like they're just wasting money." She attributes her own practical view of higher education to her mother, a second-grade teacher who has always told her, "You go to school to learn, not to play." And while she says that some of her regular teachers "think Voc. Ed. is for dummies," she refuses to accept that stigma. "I'm in college courses, Physics and things like that -- but I'd rather come here and learn a trade."

This ambition springs partly from Gina's observation of her siblings' experiences. She has two older brothers who didn't go to college, but now "wish they had." Her older sister, however, provides the most important example. Although this sister had planned to become a teacher, she gave that up and got married right out of high school. "Now," says Gina, "she's sick of staying home. She's looking for a part-time job, but there isn't much. . . . I don't want that to happen to me." Gina thinks she'd like to marry someday, and then perhaps adopt kids, but work comes first. "I'm going to get something to fall back on -- and then get married. I don't want to get stuck with no skills."

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APPENDIX I

Interview Site Selection

Schools were chosen to represent the kind of variation typical in rural New England. Four were small high schools serving single communities; four were regional, serving students from several surrounding towns. Two were Area Vocational Centers; the rest offered a varying number of vocational courses and programs. Four were located in rural communities within easy commuting distance from large employment centers; four were located in remote rural settings, where most employment must be found locally or which require substantial commuting to work. Four of the schools were in Vermont, and four in New Hampshire (highly similar states geographically, but with very different school funding patterns). There were other possible dimensions of variation; these, however, seemed most relevant to the vocational training patterns of youthful residents.

Interview Procedures

One of two interviewers, both with extensive rural school experience, visited each school for a day. They talked with administrators, vocational teachers (at least one from a traditional female program and one from a traditional male program); guidance counselors (where available); and students enrolled in both male- and female-oriented courses. Where there were programs intended to be sex-neutral, teachers and students in those programs were interviewed also.

Interviews were open-ended, but followed a general outline established by the principal investigator in conjunction with the interviewers. The basic interview outline is included below.

I. Basic Information

  A. Statistics

    number of students in school in vocational education
    number of staff in school, vocational staff

I. A. Statistics (continued)

Number of students who go into job market
Number of students who go into junior college, technical school
Number of students who go into four year college

B. Brief Description of Community

Who lives here?
What do they do?

II. A. What is the Labor Market for Males?

B. What Do Women Do in the Labor Market?

What do adult women, presently in the labor market, do?
What are the opportunities for female graduates -- any new opportunities?

C. How Do You Prepare Females for Employment?

1. Nature of vocational education programs

2. Distribution of females in programs

D. Aspirations of Females

What do they want? What do they get?

III. Analysis of Situation ("Problem")

Lack of opportunities?
Lack of family and community support systems?
Values and attitudes?
Others?

IV. Role of Vocational Education

A. 1. Impact of Title IX

2. Efforts to enroll females in non-traditional programs

B. Difficulties

"Atmosphere"?
Conflict with opportunity structure?
Polarization -- only highly sex-typed programs?

V. What Could Be Done?

A. What about:

1. Neutral occupations (not presently sex-stereotyped by students), i.e., food services, accounting, distributive education

V. A. What about: (continued)

2. High levels of stereotyped occupations

3. Entrepreneurship

4. Home/cottage industry. If doing training for these, how? For girls?

B. Other suggestions?